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MAG-904/08


**Your dealer:**

| Premium-Product brands:

Dometic THE SIGN OF COMFORT  WAECO mobile solutions

On the Move

2008

WAECO mobile solutions

# On the Move

Mobile solutions for people on the move 2008

› Coolers › Refrigerators › Cooling units › Wine coolers › Beer keg cooler › Air conditioner
› Mobile electronics › Reversing video systems › Vehicle accessories › Mobile kitchen equipment

# › To the horizon and beyond ...

2008

**There is nothing to stop you in the most beautiful weeks of the year.** WAECO is glad to be your companion on new roads. And provides innovative technology to make sure that you are safe and comfortable on all your journeys.

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www.waeco.com

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# Double gains for free time enthusiasts

## A highly competent partner and an offering at world class level

**Welcome to a new era for WAECO.** To put it plainly, that's the outcome of a happy union for WAECO customers and dealers. Everything the WAECO brand has stood for so far will remain the same: innovative products, many of them based on unique technology, a high quality standard, and a great price/performance ratio. The well-established brand names will be retained, and the familiar packaging design.

Additionally, customers and trading partners will benefit from the powerful impact of the new Dometic GROUP, its joint workforce of 6000 people and its presence in 100 countries worldwide. From now on you will have direct access to the combined know-how of two market leaders – to their networked product development and manufacturing resources, and to a seamless range of top products for the RV and marine markets.

# A perfect alliance

## WAECO on board the Dometic GROUP

Dometic GROUP

**Year 2006 saw WAECO score the best annual result in its corporate history. On the 1st of March 2007 the company became part of the Swedish-based Dometic GROUP. The merger strengthened Dometic's position as a global player in the leisure market, an industry traditionally dominated by medium-sized enterprises.**

WAECO's former managing partners decided to sell all shares in WAECO companies worldwide in order to clear the hurdles of management succession and generation change and, thus, ensure the company's continuity in the long run. Dometic, with perfectly complementary products, business segments and geographical markets, was the ideal industry partner in this endeavour.

Things look very similar from Dometic's perspective: "The key rationale behind the acquisition is to continue and extend our product range and growth and to create a company that on a global level can be a full range supplier of comfort products to all types of vehicles and boats," says Lars Johansson, President and CEO of Dometic.

# Two powerful brands

## The basis for successful operation in the global market

### **WAECO** mobile solutions

The WAECO brand is associated worldwide with expertise in mobile refrigeration and automotive air conditioning. It also stands for electronic comfort and safety accessories. Backed by a dense dealer network, the WAECO brand is well established in all continents. A comprehensive catalogue marketing business underpins its strong position in the accessory and aftermarket for cars, trucks, recreational vehicles and boats. On top of that, WAECO is a recognised OEM supplier of bespoke built-in coolers and electronic solutions to major automotive manufacturers.

**www.waeco.com**

### **Dometic** The Sign of Comfort

Customers and trading partners all over the world associate the Dometic brand with the market leader in comfort products for motorhomes, caravans and boats.

Absorption refrigerators are the segment where Dometic has achieved the best market penetration. Mobile kitchen equipment, awnings, air conditioning systems, windows, doors and lights as well as special refrigeration systems for the healthcare hotel sectors complement the range.

The alliance of the two brands has left its mark in WAECO's new "On the Move 2008" catalogue. Here, the Dometic label is represented for the first time with a comprehensive range of roof air conditioners (p. 104 – 119).

**www.dometic.com**

### Facts and figures Dometic-WAECO GROUP (2007)

- Annual sales of about EUR 1025 million
- Over 6,000 employees worldwide
- 26 proprietary production facilities worldwide
- Retail and service network spanning 100 countries

# All you need for camping and caravaning

## Safe and comfortable on the road

When you go on holiday or go away for the weekend, you leave your worries behind not your comfort. Thanks to WAECO, you can always bank on comfort on board as well as a high level of safety. Travel at ease and arrive safely with accessories that have been developed especially for motorhomes and caravans. Find all the things you need from our special programme.



Contents, specifications and availability are subject to change serving the technical improvement.

# Product overview – caravan range

## 1 › Mobile refrigeration Cooling appliances for camping and leisure time

### WAECO TropiCool

Aerospace technology: universal thermoelectric coolers. Compact size, low weight, cooling capacity up to 30°C below ambient temperature and additional heating function.

p. 33
**TropiCool TC-21FL**
Thermoelectric cooler
with TC special electronics

### WAECO CombiCool

3-way absorption coolers for maximum independence. Hassle-free operation on gas, 12 and 230 volts. Robust cabinet, generous capacity.

p. 37
**CombiCool CAB-40**
3-way absorption cooler,
40 litres capacity

### WAECO CoolFreeze

Unbeatable performance: compressor-powered coolers/freezers. Designed for worldwide use, work with almost any onboard or mains supply. Energy-saving, quiet, suitable for solar operation.

p. 51
**CoolFreeze CF-40**
Compressor cooler for
refrigeration and deep-freezing

### WAECO CoolMatic MDC

Compressor-powered camper fridge. Same dimensions as common absorption fridges, but more useful capacity and greater cooling performance.

p. 82
**CoolMatic MDC-65**
Compressor refrigeration
in absorption dimensions, approx. 64 litres

## 2 › Air conditioners Perfect climate ontrol, on the move and parked up

### Dometic

THE SIGN OF COMFORT

New: roof and under-bench air conditioners from a single source! High-performance compressor technology. Air conditioners for all vehicle sizes. DC kits for mobile operation.

p. 109
**Dometic CA-1000**
Roof air conditioner

p. 117
**Dometic HB 2500**
Under-bench air conditioner

## 3 › Reversing video systems For safe and relaxed driving

### WAECO PerfectView

Reversing without risk: complete reversing video systems for every demand. Cameras to supplement existing navigation systems.

Test winner promobil 2/2007

p. 167
**PerfectView LCD 590**
High-end reversing video system with colour twin camera

## 4 › Vehicle accessories

### WAECO MagicSafe / MagicSpeed / MagicWatch

Safe and secure: accessories for retrofitting. Alarm systems, cruise controls and more. Fast and easy installation.

p. 189
**MagicSafe MS 670**
CAN bus compatible universal car alarm

p. 195
**MagicSpeed MS 900**
Comfort cruise control

## 5 › Mobile kitchen equipment

### WAECO PerfectCoffee / PerfectKitchen

Designed to revive flagging spirits: Coffee-Makers and Car-Kettles for mobile use.

p. 201
**PerfectKitchen MCK 750**
Car-Kettle for 12 and 24 volts

p. 203
**PerfectCoffee MC 08**
Coffee-Maker de Luxe, 8 cups

## 6 › Mobile electronics Mobile energy for batteries and gadgets

### WAECO PerfectCharge

IU0U charging technology for fast and gentle charging of vehicle batteries. Various performance categories, also for simultaneous charging of two or more batteries.

p. 133
**PerfectCharge IU 1512**
IU0U automatic charger

### WAECO PerfectPower / SinePower

Inverters for mobile operation of 230-volt appliances. Available in performance categories ranging from 150 to 3000 watts.

p. 146
**SinePower MSK 1000**
Sine wave inverter

Contents, specifications and availability are subject to change serving the technical improvement.

# Set on comfort

## Tailor-made accessories for yachts and boats

The WAECO success story began with special developments for the marine sector. Decades of experience and loving attention to detail have left their mark on every single product. We delight in making sure you feel immediately welcome on board and derive a maximum of enjoyment from your trip. Please make your choice from our wide range of products for yachts and boats.


Contents, specifications and availability are subject to change serving the technical improvement.

## 1 › Mobile refrigeration (Built-in) fridges and cooling units

### WAECO TropiCool

Aerospace technology: universal thermo-electric coolers. Compact size, low weight, cooling capacity up to 30°C below ambient temperature and additional heating function.

p. 33
**TropiCool TC-21FL**
Thermoelectric cooler
with TC special electronics

### WAECO CoolFreeze

Unbeatable performance: compressor-powered coolers/freezers. Designed for worldwide use, work with almost any onboard or mains supply. Energy-saving, quiet, suitable for solar operation.

p. 51
**CoolFreeze CF-40**
Compressor cooler for
refrigeration and deep-freezing

### WAECO CoolMatic

Where height and width is limited, they use the depth of the cupboard space instead: top loading built-in fridges/freezers.

p. 61
**CoolMatic CB-36**
Built-in cooler
for mobile kitchens

### WAECO ColdMachine

Cooling units and evaporators for individual onboard cooling comfort. From low-priced entry-level units to professional solutions for highest demands.

p. 94
**ColdMachine 94**
Professional unit for extra-large cooling
capacities and for use in tropical waters

## 2 › Mobile electronics Mobile energy for batteries and gadgets

### WAECO PerfectCharge

IU0U charging technology for fast and gentle charging of vehicle batteries. Various performance categories, also for simultaneous charging of two or more batteries.

p. 133
**PerfectCharge IU 1512**
IU0U automatic charger

### WAECO PerfectPower / SinePower

Inverters for mobile operation of 230-volt appliances. Available in performance categories ranging from 150 to 3000 watts.

p. 146
**SinePower MSK 1000**
Sine wave inverter

## 3 › Mobile refrigeration Premium built-in refrigerators for yachts and boats

### WAECO CoolMatic CR / CR Chrome

Exclusive homelike cooling comfort – now also in luxurious chrome finish! Tropical-rated compressor refrigerators with advanced features and functions. Separate *** freezer compartment, bottle holder, trays, interior light, double door lock – perfect in every detail. Two series, two design options: in satin stainless steel or new sparkling chrome finish.

p. 66–73
**CoolMatic CR / CR Chrome**
Premium built-in refrigerators for yachts and boats

A board bar integrated in the middle console: **Rolls-Royce Phantom**

WAECO BordBar integrated in the middle console of the Mercedes-Benz S-Guard

A board bar in the middle console: **Land Rover Discovery 3** and **Range Rover Sport**

# OEM by WAECO
## Luxury as standard

**WAECO ex-factory: fresh competence for the original equipment market.** Leading automotive manufacturers (OEMs) put their trust in WAECO's competence and innovative strength in integrated cooling systems. Mobile refrigeration by WAECO makes travelling a comfortable and refreshing experience in Maybach and Mercedes, BMW and Rolls-Royce, VW and Bentley automobiles.

## ↘ WAECO – trusted partner of the automotive industry

### PASSENGER CARS

Audi
Bentley
BMW
Daimler
Fiat
Ford
Land Rover
Maybach
Mazda
PSA
Rolls-Royce
Skoda
Volvo
Volkswagen

### TRUCKS

MAN
Mercedes-Benz
Scania
Volvo

**Built-in fridge for the VW T5 Camper**

The T5 Camper by Volkswagen is a classic amongst camping vehicles. For its kitchenette WAECO developed an adjustable 42-litre fridge with integrated battery charger. The novel combination of fridge and charging unit excels for its compact design.

# **WAECO – fresh ideas**
# for camping and leisure time

**WAECO** has made a name for itself as a **specialist in mobile refrigeration**. Our know-how is appreciated by consumers and trading partners as well as by the automotive industry. **WAECO is the world's leading supplier of integrated cooling systems**. Working for well known automotive clients, WAECO designs bespoke cooling compartments, car coolers and battery chargers to suit specific vehicles. Built-in coolers are increasingly offered as factory-fitted optional extras.

Thermoelectric cooler for the **VW T5 Multivan**, secured to the vehicle's floor rails with a fixing kit.

Designed for **Mercedes Viano, Vito and Vaneo**, this cooler affords a generous capacity of 16.5 litres. The shoulder strap can also be used to fasten the cooler in the vehicle.

Accessory for the **Renault Trafic Generation**: spacious, 32-litre BordBar, secured on the vehicle's floor rails.

# Convenience sets the course
## Built-in fridges for yachts

**Boundless freedom:** The horizon seems within easy reach – the next refreshment certainly is. And it is truly refreshing. Just take a few steps below deck: the built-in WAECO CR fridge holds the next, cool round ready to be enjoyed. Renowned Bavaria Yachtbau GmbH trusts innovative, reliable WAECO technology, too ...

**WAECO** supplies cooling units with high-performance evaporators for all **Bavaria sailing yachts**

Cool cockpit: all Bavaria motor yachts are supplied as standard with WAECO built-in refrigerators.

Built-in WAECO fridges can be adapted to the kitchen decor and blend with the galley design.

# 230 volts in the VW Passat – and in other cars too

**Volkswagen's Passat was the first to have it.** Then it made its entrance into other VW models, the Touareg, Jetta and Golf Plus. Before long, it will be integrated into the Audi A4 as well: a 230-volt Euro-socket generating up to 300 watts alternating current. Its secret is a tailor-made WAECO inverter, backed by a wealth of electronics expertise that convinced decision makers in Wolfsburg and elsewhere ...

More and more European series-produced vehicle come with a 230-volt Euro socket. The required alternating voltage is generated by a WAECO inverter.

# Vehicle-specific parking aids

Leading automotive manufacturers have come to appreciate WAECO as a creative, flexible and reliable supplier of original equipment. More and more WAECO ideas are integrated as standard equipment. Vehicle-specific parking aids for KIA and Subaru, for example.

# › Personal coolers


| | | |
|---|---|---|
| WAECO MyFridge | Absorption refrigerator | 16 › 17 |
| WAECO MyFridge | Wine coolers | 18 › 21 |
| WAECO MyFridge | Beer keg cooler | 22 › 23 |

# WAECO MyFridge MF-40

www.waeco.com

## Quiet, but cool inside

### Absorption fridge for home and mobile use

**Man and "machine" in the same room: a good match, provided the latter is perfectly silent, and doesn't interfere with your sleep or your concentration when you're working.**

The new, compact MyFridge MF-40 is such a performer. Equipped with well-proven absorption technology, it works noiselessly and can even be run by the bedside without any problem. It still attracts a lot of attention though thanks to its cool, silver-metallic finish and nostalgic styling, which blends harmoniously with any modern interior.

The classic exterior conceals high-performance technology. MyFridge MF-40 delivers cooling results up to 25 °C below the ambient temperature. With a capacity of 40 litres, two handy door compartments and two grid trays it provides enough room for everything you need. To create space for 2-litre bottles standing upright just remove one of the trays.

Perfect in design and finish, MyFridge MF-40 brings quiet cooling comfort into offices and the homes of single people, students, or senior citizens. It can also be fitted in vehicles for free-time fun: the MF-40 can be connected to the vehicle battery via the 12-volt cable.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO MyFridge MF-40 4.15

NEW

| Absorption refrigerator | |
|---|---|
| Gross capacity | 40 litres |
| Voltage | 12 volts DC, 220–240 volts AC |
| Power consumption | approx. 60 watts |
| Cooling capacity | Up to 25°C below the ambient temperature |
| Insulation | Full foam insulation in CFC-free polyurethane |
| System | Absorption refrigeration |
| Material | Coated sheet steel |
| Colour | Silver-metallic |
| Dimensions (W x H x D) | 402 x 555 x 440 mm |
| Weight | 15 kg |
| Quality features | Adjustable thermostat, door with magnetic seal, two trays and two door racks (removable), vertical space for standing 2-litre bottles, silent operation |
| Test marks | TÜV/GS, CE |

| Product | Ref. No. |
|---|---|
| MyFridge MF-40 | 9105700001 |

**Up to 25°C below the ambient temperature**

**Noiseless operation – can be used by the bedside**

**Perfect in design and finish**

**Ideal for use in studio apartments and offices**

Contents, specifications and availability are subject to change serving the technical improvement.

# **Stylish** wine climatiser

## Perfectly cooled wine – Treat yourself, you're worth it!

The compact MF-1W wine climatiser is a "must-have" for any party. It **cools your wine** and maintains the **ideal drinking temperature** for hours. The temperature is **continuously variable**, so you can set it just the way you prefer. The **digital monitor** displays the preset and current temperature.

But what if there's no power socket in reach? Don't worry, your wine climatiser is ready for **cordless operation** with commonly available batteries. A set of batteries will give you up to **three hours of mains-independent cooling** with no cord to disturb the table setting.



Contents, specifications and availability are subject to change serving the technical improvement.

For camping, home, office, on the road ... Also makes an inventive gift. Impress your friends with your good taste!

## WAECO MyFridge MF-1W 4.15

**Thermoelectric wine climatiser for mains operation, cordless battery operation, or connection to 12-volt cigarette lighter socket**

| | |
|---|---|
| Gross capacity | 1 bottle up to 90 mm in diameter |
| Voltage | 12 volts DC or 100–240 volts AC |
| Average power consumption | approx. 33 watts |
| Temperature range | Variable from +5°C to +20°C (up to 18°C below the ambient temperature) |
| Insulation | Polyurethane |
| System | Wear-free thermoelectrics with exterior fan |
| Material | ABS |
| Colour | Red/black |
| Dimensions (W x H x D) | 130 x 200 x 200 mm |
| Weight | 1.3 kg |
| Quality features | Soft-touch keypad with digital temperature display, continuously variable temperature, operation with alternating or direct voltage, up to 3 hours of mains-independent cooling with 8 AA-size batteries (disposable or rechargeable), batteries not included |
| Test marks | TÜV/GS, CE |

| Product | Ref. No. |
|---|---|
| MyFridge MF-1W | 9106300001 |

Up to 18°C below ambient temperature

12 volts DC or 100–240 volts AC

Up to 3 hours of mains-independent cooling

Soft-touch keypad with digital readout of the preset or current temperature

Cordless operation: with commonly used batteries (disposable or rechargeable)

Ready for operation with 12 volts DC or 100–240 volts AC

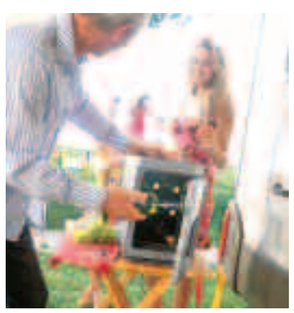
Contents, specifications and availability are subject to change serving the technical improvement.

# Compact wine refrigerator for 6 bottles

## Enjoy your wine the professional way

**How do you like your wine?** Full-bodied red wines, such as a fine Bordeaux, should be served at a temperature of 18°C. A young, fruity Riesling tastes best at about 10°C.

Whichever you prefer, the elegant wine refrigerator MF-6W brings your wine to the perfect temperature. Large enough to store six standard-size bottles of wine (up to 32 cm bottle length), it keeps you well prepared for a planned dinner party or an unexpected guest ...



### Recommended drinking temperatures

| | |
|---|---|
| White table wines and dry, acid wines | +7 to +9 °C |
| Full-bodied, rich bouqet whites, late harvests, special late harvests | +10 to +12 °C |
| White wines with pronounced residual sweetness, raisin wines, ice wines | +12 to +14 °C |
| Rosé wines | +6 to +8 °C |
| Red table wines | +10 to +14 °C |
| Full-bodied, dry red wines | +14 to +16 °C |
| Full-bodied, rich bouquet red wines | +16 to +18 °C |



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO MyFridge MF-6W

4.15

| Thermoelectric wine refrigerator for 12 volts DC or 100–240 volts AC | |
|---|---|
| Gross capacity | approx. 18 litres or 6 bottles lying (bottle length up to 32 cm) |
| Voltage | 12 volts DC or 100–240 volts AC |
| Average power consumption | approx. 48 watts |
| Temperature range | Variable from +5°C to +20°C (up to 18°C below the ambient temperature) |
| Insulation | Polyurethane |
| System | Wear-free thermoelectrics with interior and exterior fan |
| Material | ABS |
| Colour | Silver |
| Dimensions (W x H x D) | 260 x 410 x 470 mm |
| Weight | 6.5 kg |
| Quality features | Electronic thermostat with digital temperature display, continuously variable temperature, transparent door, safe magnetic lock, 3 grid shelves to accommodate the bottles, interior light can be switched on or off, drip tray for the condensation water |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| MyFridge MF-6W | MF-6W-12/230 |

Up to 18°C below ambient temperature

12 volts DC or 100–240 volts AC

Vibration-free refrigeration protects the wine

Low-noise operation

## Ideal “climate” for 6 bottles of wine

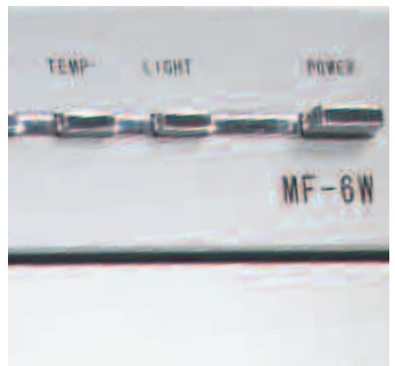
The **MF-6W** wine refrigerator stores your most precious wines perfectly. The **desired temperature (between +5°C and +20°C)** is simply preset and then reliably maintained.

The **easy-to-read display** shows the preset and current temperature. **Removable grid shelves** hold the bottles in place – with space in between and a cooling layer of air all around them. Compact, practical and **absolutely vibration-free**, the wine cabinet provides a quiet place for the wine to unfold its potential. Which gives you the peace and quiet to relax and enjoy.

**Ideal for home use as well as for small, fine restaurants. With interior light. Ready for connection to 12 volts DC or 100–240 volts AC.**

At the touch of a button, the digital monitor displays the preset and current temperature in °C

Removable grid shelves for easy cleaning




Easy to use with keys for all essential functions

Contents, specifications and availability are subject to change serving the technical improvement.

# WAECO MyFridge MF-5B

www.waeco.com

## **Pure beer delight –** fresh from the keg

### High-performance beer keg cooler for 5-litre kegs

Tastes may differ considerably where beers brands are concerned, yet beer lovers certainly agree on how a good beer should be served: freshly drawn and just at the right temperature. In future you can treat yourself – and your friends – to this truly enjoyable experience at home, too – it's perfectly hygienic and simple. WAECO's MyFridge beer keg cooler gives you a "head-start" in good taste.

- **Efficient, even recirculation air cooling,** optimal drinking temperature from the first to the last drop
- **Suitable for 5-litre kegs** with integrated tap known as "party kegs".
- **Based on the principle of traditional broaching** (drawing at the bottom, aeration from above), no expensive $CO_2$ cartridges required
- **Maximum food hygiene:** easy to clean without chemicals, because there are no beer-carrying hoses
- **Ideal for parties** indoors or out, ready for connection to 100–240 volts AC or 12 volts DC with additional connection cable



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO MyFridge MF-5B

4.15

| **High-performance beer keg cooler for all 5-litre non-return kegs with integrated spigot** | |
|---|---|
| Gross capacity | 5 litres |
| Voltage | 100–240 volts AC with mains adapter supplied as standard, 12 volts DC (with optional cable) |
| Power consumption | approx. 48 watts |
| Cooling capacity | Up to 25°C below the ambient temperature |
| Insulation | CFC-free PU foam, EPP |
| Colour | Black/silver |
| Dimensions (W x H x D) | 276 x 448 x 353 mm (incl. drip tray) |
| Weight | 2.8 kg |
| Quality features | Suitable for all 5-litre non-return kegs with integrated tap, activated by inductive switch, efficient and even recirculation air cooling, very hygienic: no need to clean broaching equipment or hoses inside the unit. |
| Test marks | TÜV/GS, CE |

| Product | Ref. No. |
|---|---|
| MyFridge MF-5B | MF-5B-12/230 |
| **Optional extra** | |
| Connection cable for 12 volts DC | TK-280SB |

**Up to 25°C below ambient temperature**

**Efficient and even recirculation air cooling**

**Based on the principle of traditional broaching, no expensive $CO_2$ cartridges required**

**Maximum food hygiene, minimum cleaning effort**

**Tremendous choice of beer varieties in favourably priced 5-litre party kegs**

**Unbeatable value for money**

### The "all-round advantage": recirculation air cooling

**The WAECO MyFridge beer keg cooler features a unique technical advantage: its recirculation air cooling.**

As soon as the unit is activated, cooled air begins to circulate all around the keg to ensure an even cooling effect.

This principle is far superior to other manufacturers' contact or radiation cooling.

Fresh from the keg – that's how easy it is:
Insert the keg with pulled-out tap – fasten the cover – enjoy your beer

Handy slide access for convenient keg aeration

Contents, specifications and availability are subject to change serving the technical improvement.

# › Mobile refrigeration


| | | |
|---|---|---|
| WAECO CoolFun | Thermoelectric coolers at an entry-level price | 28 › 29 |
| WAECO TropiCool | Thermoelectric high-tech coolers | 30 › 33 |
| WAECO CombiCool | 3-way absorption coolers | 34 › 39 |
| WAECO CoolFun | Compressor cooler 230 volts AC | 42 › 43 |
| WAECO CoolFreeze | Compressor coolers 12/24/230 volts DC/AC | 44 › 57 |
| WAECO CoolMatic | Built-in compressor cooling appliances | 58 › 63 |
| WAECO CoolMatic | Compressor refrigerators | 64 › 85 |
| WAECO ColdMachine | Cooling units | 86 › 97 |
| WAECO CoolPower | Electronic accessories for cooling appliances | 98 › 101 |

# Thermoelectrics
## Low-cost, light-weight, versatile

### Inexpensive coolers for private and professional use

**Thanks to their low weight, thermoelectric coolers are particularly easy to carry and transport.** Their astonishing cooling capacity of up to 30°C below the ambient temperature is more than sufficient for most purposes, including car journeys, camping or picnics.

Thermoelectrics offer a welcome bonus: most of the coolers equipped with this **wear- and maintenance-free technology** can be used for both **cooling and heating.** Cost-efficient and reliable, thermoelectric energy is "just right" for **small and medium-size portable coolers.**



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolFun

### Low-cost portable coolers

WAECO CoolFun portable coolers are compact outside and spacious inside – thanks to the thermoelectric technology. The innovative design in cool blue is just right for spontaneous outdoor adventures.

CoolFun CD-22 CoolFun CD-32

Pages 28 – 29

## WAECO TropiCool

### Comfortable high-tech coolers

WAECO TropiCool coolers provide powerful cooling (up to 30°C below the ambient temperature) and perfect design. TC special electronics with soft-touch operating panel and power-save mode. 12/24/230-volt connection as standard (TC-07: 12/230 volts).

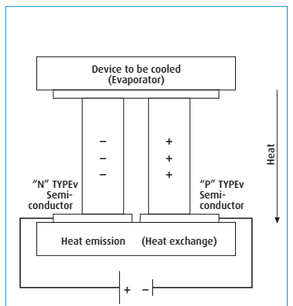
TropiCool TC-35FL TropiCool TC-21FL TropiCool TC-14FL TropiCool TC-07

Pages 30 – 33

## ↘ Thermoelectrics

The thermoelectric principle was discovered in 1834 by J. C. A. Peltier. Hence, the temperature generating parts of thermoelectric systems are referred to as Peltier elements. Thermoelectrics are based on the fact that cold or heat energy is generated when the connection between different types of metals is linked to a DC power source. The heating or cooling capacity is perfectly sufficient for small and medium-sized coolers. It can be ideal by heat exchangers and air fans.

- **Ready for operation with 12/24 volts DC or 230 volts AC**
- **Cooling performance up to 30°C below the ambient temperature (depending of the the size and design of the appliance)**
- **Can be used for cooling and keeping food warm**
- **Impeccable operation in inclined position**
- **Low weight, convenient to transport**
- **Wear-resistant and maintenance-free**
- **Low investment cost**



Contents, specifications and availability are subject to change serving the technical improvement.

# Pit stop at bargain price

## Affordable coolers with AC/DC connection and astonishing extras

WAECO CoolFun coolers are light and handy, yet they have a great deal to offer. Cheerfully blue in colour and compact in design, they are surprisingly roomy inside – large enough to accommodate even tall bottles.

The "trick" is that the **innovative thermoelectric system** takes up little space while providing impressive functionality. It will not only bring the temperature down to +5°C, but also raise it to +70°C if required.

Thanks to the **integrated 230-volt mains adapter** you can run your cooler from the mains at home or the cigarette lighter of your vehicle. The **priority circuit for 230 volts** reduces the strain on the vehicle battery to a minimum.

Additionally, the WAECO CoolFun CD-32 features a **power-save circuit** for maximum economy. The CoolFun CD-22 comes with an **extra insulating lid** for convenient transport without power supply.

WAECO CoolFun adds pleasure to your break – in your free time and at work.



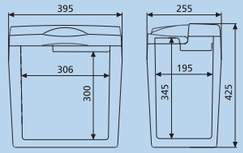
Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolFun CD-22

4.02

**Extra insulating lid**
(ideal for going to the beach)




| Thermoelectric cooler with additional insulating lid | |
|---|---|
| Gross capacity | approx. 22 litres |
| Voltage | 12/230 volts DC/AC |
| Power consumption | approx. 48 watts |
| Temperature range | Cooling mode: up to 20°C below the ambient temperature, heating mode: interior temperature limited by thermostat at +65°C |
| Insulation | Polyurethane full-foam insulation |
| System | Wear-free thermoelectrics (Peltier system) |
| Material | Sturdy injection-moulded parts |
| Colour | Blue/white |
| Weight | approx. 4.8 kg |
| Quality features | Brushless fan, vertical space for standing 1.5-litre bottles, dynamic interior ventilation, can be switched to cold/warm, practical recessed grip in the lid, ready for connection to 12/230 volts with priority for 230 volts |
| Scope of delivery | Additional insulating lid |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| CoolFun CD-22 | CD-22-AC |

Up to 20°C below ambient temperature

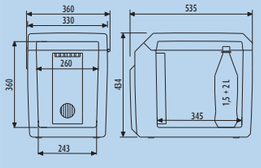
Up to +65°C in the heating mode

12/230 volts

With additional insulating lid

## WAECO CoolFun CD-32

4.02




| Thermoelectric cooler with power-save circuit | |
|---|---|
| Gross capacity | approx. 32 litres |
| Voltage | **12/230 volts DC/AC** |
| Power consumption | approx. 60 watts at 12 volts, approx. 70 watts at 230 volts |
| Temperature range | Cooling mode: +5°C to +15°C (up to 25°C below the ambient temperature); heating mode: +55°C to +70°C |
| Insulation | Polyurethane full-foam insulation |
| System | Wear-free thermoelectrics (Peltier system), cold transmission to the interior by dynamically ventilated aluminium heat exchanger, heat dissipation to the outside with high-performance heat exchanger and brushless, wear-free fan |
| Material | Sturdy injection-moulded parts |
| Colour | Blue/white |
| Weight | approx. 8.0 kg |
| Quality features | Purpose-built, intelligent power-save circuit, interior temperature continuously variable with slide switch from +5°C to +15°C or +55°C to +70°C, ON/OFF and cold/warm switches on membrane keypad, vertical space for 2-litre bottles, can be used as a chest or upright fridge, ready for connection to 12/230 volts with priority for 230 volts |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| CoolFun CD-32 | CD-32-AC |

Up to 25°C below ambient temperature

Up to +70°C in the heating mode

12/230 volts

With power-save circuit

Contents, specifications and availability are subject to change serving the technical improvement.

# The comfort series for cool enjoyment

## High-tech coolers with AC/DC and special electronics

**Mobility, performance and convenience – these are the hallmarks of the WAECO TropiCool series.** State-of-the-art thermoelectrics make for outstanding cooling results up to 30°C below the ambient temperature.
Add to this the useful features and functions: 12/24/230 volts AC/DC available as standard, individual temperature regulation with LED readout and memory function, to name but a few. At the touch of a button the coolers (+1°C to +15 °C) can be turned into warmer boxes (+50°C to +65°C). WAECO TropiCool – the comfort class of thermoelectric refrigeration.

**12/24 volts DC** **230 volts AC**

WAECO TropiCool coolers provide plug & play convenience, no matter whether you've got a 12/24-volt or 230-volt power source. The AC/DC feature is available as standard! (TC-07: 12/230 volts.)



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO TropiCool – powerful luxury

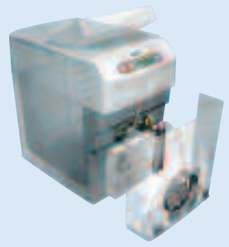
TropiCool TC-07 TropiCool TC-35FL TropiCool TC-14FL TropiCool TC-21FL

## The intelligent power-save circuit

TropiCool coolers are great energy savers. As soon as the power is on, they **cool at full capacity** to reach the desired temperature. Once this has been achieved, they switch automatically to the **power-save mode.** In this mode, the Peltier element draws very little power. This gives rise to an insulation bridge that prevents heat from flowing into the cooling compartment.

**Example:** a conventional cooler operated in the 12-volt mode consumes between 4 and 4.5 Ah per hour to achieve an interior temperature of 5°C at an ambient temperature of 25°C, the TC-21FL makes do with just 2.1 Ah per hour.

## ↘ Perfect down to the last detail – product benefits of the TropiCool series



- **Highly effective insulation**
  Outstanding energy efficiency
- **Dynamic interior ventilation**
  Significantly improved cooling performance
- **Wear-free fans**
  Long service life
- **Intelligent energy-saving circuit**
  Electronics switch automatically to power-save mode once the desired interior temperature has been reached (for TC-14FL, TC-21FL and TC-35FL, p. 32 – 33).
- **12/24/230 volts as standard**
  With priority circuit for 230 volts
- **Heat exchanger and high-performance Peltier element**
  Cooling performance up to 30°C below ambient temperature!
- **Magnetic switch**
  Switches the interior fan off when you open the cooler
- **Universal fixing kit** for TC-14FL, TC-21FL and TC-35FL (p. 32 – 33)

### TC special electronics with soft-touch operating panel

**WAECO TropiCool coolers*** provide refrigeration up to 30°C below the ambient temperature and heating up to +65°C. Using the soft-touch operating panel, you can set the desired temperature in seven stages each: from +1°C to +15°C in the cooling mode, or from +50°C to +65°C in the heating mode. The memory function saves the last set parameters.

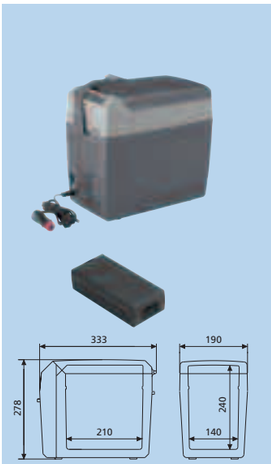
- Cooling up to 30°C below ambient temperature
- Heating up to +65°C
- 7-stage temperature regulation for cooling and heating
- LED temperature readout
- Memory function saves the last settings
- Membrane keypad protects the electronics from dust and moisture

* All models except TC-07

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO TropiCool TC-07

4.01




| Thermoelectric cooler | |
|---|---|
| Gross capacity | approx. 7 litres |
| Voltage | **12/230 volts DC/AC** |
| Power consumption | approx. 36 watts |
| Temperature range | Cooling mode: approx. +5°C (up to 25°C below ambient temperature); heating mode: approx. +65°C |
| Insulation | Polyurethane full-foam insulation |
| System | Wear-free thermoelectrics (Peltier system), cold/heat transmission to the interior through coated aluminium container, heat dissipation to the outside by brushless, wear-free fan |
| Colour | Dark grey/pale grey |
| Weight | approx. 2.8 kg |
| Quality features | Temperature regulation for cooling and heating with fixed point thermostats, ready for connection to 230 volts |
| Scope of delivery | Shoulder strap, 12-volt connection cable and 230-volt mains adapter included |
| Test marks | TÜV/GS, e-appr. to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| TropiCool TC-07 | TC-07UG-12/230 |

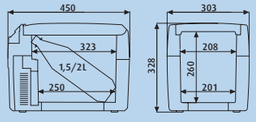
Up to 25°C below ambient temperature

Up to +65°C in the heating mode

12/230 volts

## WAECO TropiCool TC-14FL

4.01




| Thermoelectric cooler with TC special electronics | |
|---|---|
| Gross capacity | approx. 14 litres |
| Voltage | **12/24 volts DC and 230 volts AC** |
| Power consumption | approx. 55 W at 12 V DC, approx. 60 W at 24 V DC, approx. 80 W at 230 V AC |
| Average running time | 30% at +20°C ambient temperature |
| Temperature range | Cooling mode: +1°C to +15°C (up to 30°C below ambient temperature); heating mode: +50°C to +65°C |
| Insulation | Polyurethane full-foam insulation |
| System | Wear-free thermoelectrics (Peltier system), cold transmission to the interior by dynamically ventilated aluminium heat exchanger, heat dissipation to the outside with high-performance heat exchanger and brushless, wear-free fan |
| Material | Sturdy, injection moulded parts |
| Colour | Dark grey/pale grey |
| Weight | approx. 5.0 kg |
| Quality features | TC special electronics, 7-stage electronic thermostat with LED indicators, memory function, ON/OFF and cold/warm option activated with soft-touch operating panel, intelligent power-save circuit; integrated mains supply unit with priority circuit, outstanding cooling performance, magnetic switch to deactivate the interior fan when the box is opened, detachable lid with magnetic lock, sturdy, fold-away handle |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| TropiCool TC-14FL | TC-14FL-AC |
| **Optional extra:** universal fixing kit | UFK-T |

Up to 30°C below ambient temperature

Up to +65°C in the heating mode

12/24/230 volts

TC special electronics

## Universal fixing kit

4.01

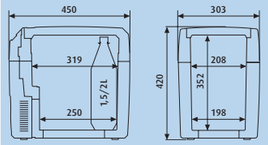
| **For TropiCool TC-14FL, TC-21FL, TC-35FL:** fastening of TropiCool coolers in vehicles. | |
|---|---|
| Material | Powder-coated metal |
| Colour | Black |
| Scope of delivery | Two base plates, two adjustable straps, set of screws |
| **Product** | **Ref. No.** |
| Universal fixing kit | UFK-T |

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO TropiCool TC-21FL

4.01




| Thermoelectric cooler with TC special electronics | |
|---|---|
| Gross capacity | approx. 21 litres |
| Voltage | **12/24 volts DC and 230 volts AC** |
| Power consumption | approx. 55 W at 12 V DC, approx. 60 W at 24 V DC, approx. 80 W at 230 V AC |
| Average running time | 32% at +20°C ambient temperature |
| Temperature range | Cooling mode: +1°C to +15°C (up to 30°C below the ambient temperature); heating mode: +50°C to +65°C |
| Insulation | Polyurethane full-foam insulation |
| System | As for TC-14FL |
| Material | Sturdy, injection-moulded parts |
| Colour | Dark grey/pale grey |
| Weight | approx. 6.0 kg |
| Quality features | TC special electronics, 7-stage electronic thermostat with LED indicators, memory function, ON/OFF and cold/warm option activated with soft-touch operating panel, intelligent power-save circuit; integrated mains supply unit with priority circuit, outstanding cooling performance, magnetic switch to deactivate the interior fan when the box is opened, detachable lid with magnetic lock, sturdy, fold-away handle, vertical space for 2-litre bottles, adjustable grid divider |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| TropiCool TC-21FL | TC-21FL-AC |
| **Optional extra:** Universal fixing kit | UFK-T |

Up to 30°C below ambient temperature

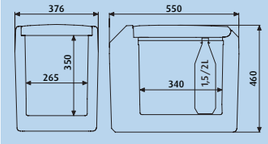
Up to +65°C in the heating mode

12/24/230 volts

TC special electronics

## WAECO TropiCool TC-35FL

4.01




| Thermoelectric cooler with TC special electronics | |
|---|---|
| Gross capacity | approx. 35 litres |
| Voltage | **12/24 volts DC and 230 volts AC** |
| Power consumption | approx. 55 W at 12 V DC, approx. 60 W at 24 V DC, approx. 80 W at 230 V AC |
| Average running time | 35% at +20°C ambient temperature |
| Temperature range | Cooling mode: +1°C to +15°C (up to 30°C below the ambient temperature); heating mode: +50°C to +65°C |
| Insulation | Polyurethane full-foam insulation |
| System | As for TC-14FL |
| Material | Sturdy, injection moulded parts |
| Colour | Dark grey/pale grey |
| Weight | approx. 10.0 kg |
| Quality features | TC special electronics, 7-stage electronic thermostat with LED indicators, memory function, ON/OFF and cold/warm option activated with soft-touch operating panel, intelligent power-save circuit; integrated mains supply unit with priority circuit, outstanding cooling performance, magnetic switch to deactivate the interior fan when the box is opened, detachable lid with snap lock closure, handy carrying grips, vertical space for 2-litre bottles, adjustable grid divider |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| TropiCool TC-35FL | TC-35FL-AC |
| **Optional extra:** Universal fixing kit | UFK-T |

Up to 30°C below ambient temperature

Up to +65°C in the heating mode

12/24/230 volts

Jumbo cooler for campers, travellers and truckers

TC special electronics

Contents, specifications and availability are subject to change serving the technical improvement.

# Absorption technology
## Cooling with power and gas

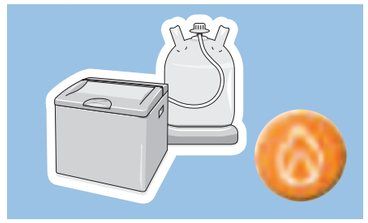
3-way cooling

### 3-way refrigeration: all the freedom you need

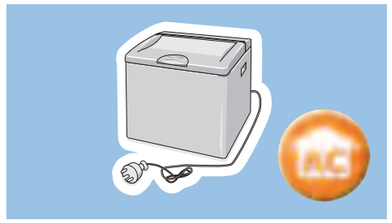
Absorption coolers are truly mobile, giving camping enthusiasts all the freedom they need. **Gas operation** in a remote field, **convenient 230-volt hook-up** at the campsite, power supply from the **cigarette lighter socket in cars or motorhomes** – anything is possible!

Switch-over from one energy mode to another in a trice! Whether gas, 12 or 230 volts, the refrigeration system can be flexibly adjusted to suit your needs – up to 30°C below the ambient temperature.

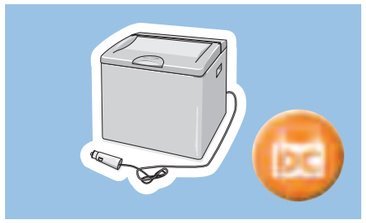
**Gas operation**



**230-volt connection**




**12-volt connection**






Contents, specifications and availability are subject to change serving the technical improvement.



WAECO CombiCool

## Portable 3-way absorption coolers

WAECO CombiCool coolers are robust, spacious and versatile. Featuring high-performance absorption technology, they can be operated on 12 volts, 230 volts or gas – which means simply everywhere! Ideal for camping and caravaning.

CombiCool CAB-40

CombiCool CAB-55

Pages 36 – 37

WAECO CombiCool

## 3-way absorption refrigerator

The WAECO CombiCool absorption refrigerator also offers 3-way refrigeration with 12 volts, 230 volts and gas. A universal fridge with a functional and spacious interior for food, drinks and ice cubes.

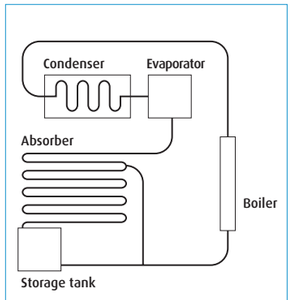
CombiCool CAS-60

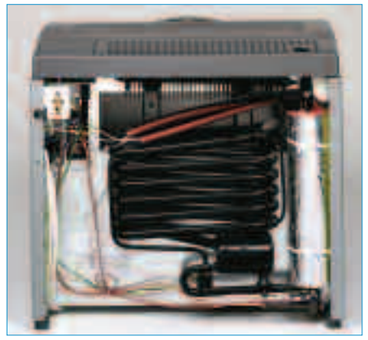
Pages 38 – 39

## ↘ Absorption cooling

A concentrated ammonia solution is heated in a boiler and driven off as vapour. The pressurised ammonia gas is then liquefied in a condenser and supplied with hydrogen. As a result, it evaporates and, in the process, extracts heat from the food storage space. The ammonia gas then enters the absorber where it is reabsorbed in a weak solution of ammonia. Finally, the saturated solution flows back to the boiler where the whole cycle starts again.

- **Runs on gas, 12 volts or 230 volts**
- **Relatively low investment cost**
- **Noiseless operation**



Contents, specifications and availability are subject to change serving the technical improvement.

# For camping and leisure

## Absorption technology – cooling with power and gas

**One cooling appliance for all situations – this is how the smart CombiCool absorption coolers are best described.** They provide a generous capacity of 40 or 55 litres for snacks and drinks which can be cooled with either gas or electricity (12 volts DC or 230 volts AC.) While you are on the road in your car or motorhome, the energy comes from the vehicle battery via the cigarette lighter. At your destination you can switch over to either gas or 230 volts.

Their **flexibility, functional design** and **robust cabinet** have made our CombiCool absorption coolers a real success – highly appreciated by motorhome owners, camping and outdoor enthusiasts alike.

Regulators for gas and electric operation

Evaporator with recessed space for ice cube tray

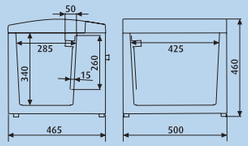
Organises the contents:
detachable wire basket (CAB-55)



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CombiCool CAB-40 4.16




| 3-way absorption cooler with 40-litre capacity | |
|---|---|
| Gross capacity | approx. 40 litres |
| Energy supply/consumption | 230 V AC/50 Hz/100 W/0.43 A, 12 V DC/100 W/8.33 A, liquefied petroleum gas 30 or 50 mbar/category I 3 B/P / 13 g/h max. In Germany, the 30-mbar model may only be used in combination with the ASK-30 connection set. |
| Cooling capacity | Up to 30°C below ambient temperature |
| Insulation | Full foam insulation in CFC-free polyurethane foam |
| Weight | approx. 16 kg |
| Material | Cabinet in coated sheet steel, lid and cooling unit cover in plastic |
| Colour | Cabinet: silver-grey, lid and cooling unit cover: dark grey |
| Quality features | Piezo ignition, thermostat regulation in the 230-volt mode, continuously variable flame regulation in the gas mode, ice cube tray, vertical space for 2-litre bottles |
| Test marks | Certified to European Gas Appliance Directive 90/396/EEC, e-approved to 95/54/EC (EMC vehicle guidelines) |

| Products | Ref. No. |
|---|---|
| CombiCool CAB-40 (30 mbar) | CAB-40-PB30 |
| CombiCool CAB-40 (50 mbar) | CAB-40-PB50 |
| Connection set for the 30-mbar model, essential for use in Germany | ASK-30 |

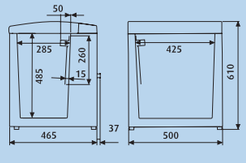
Up to 30°C below ambient temperature

12/230 volts

Gas

**40-litre gross capacity!**

## WAECO CombiCool CAB-55 4.16




| 3-way absorption cooler with 55-litre capacity and detachable wire basket | |
|---|---|
| Gross capacity | approx. 55 litres |
| Energy supply/consumption | 230 V AC/50 Hz/100 W/0.43 A, 12 V DC/100 W/8.33 A, liquefied petroleum gas 30 or 50 mbar/category I 3 B/P / 19 g/h max. In Germany, the 30-mbar model may only be used in combination with the ASK-30 connection set. |
| Cooling capacity | Up to 25°C below ambient temperature |
| Insulation | Full foam insulation in CFC-free polyurethane foam |
| Weight | approx. 20 kg |
| Material | Cabinet in coated sheet steel, lid and cooling unit cover in plastic |
| Colour | Cabinet: silver-grey, lid and cooling unit cover: dark grey |
| Quality features | Piezo ignition, thermostat regulation in the 230-volt mode, continuously variable flame regulation in the gas mode, ice cube tray, detachable wire basket, vertical space for 2-litre bottles |
| Test marks | Certified to European Gas Appliance Directive 90/396/EEC, e-approved to 95/54/EC (EMC vehicle guidelines) |

| Products | Ref. No. |
|---|---|
| CombiCool CAB-55 (30 mbar) | CAB-55-PB30 |
| CombiCool CAB-55 (50 mbar) | CAB-55-PB50 |
| Connection set for the 30-mbar model, essential for use in Germany | ASK-30 |

Up to 25°C below ambient temperature

12/230 volts

Gas

**55-litre gross capacity!**

**With detachable wire basket**

Contents, specifications and availability are subject to change serving the technical improvement.

# WAECO CombiCool absorption refrigerator

## Powered by a dream team trio: AC, DC and gas

**Mobile, convenient, versatile: the WAECO CombiCool absorption refrigerator is a cool tip for camping and caravan enthusiasts.** Its particular strength is its ability to transform three energy sources (12 volts, 230 volts or gas) into amazing cooling power.

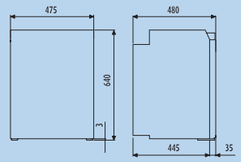
So flexible you can easily take it to wherever you need a refrigerator: to the motorhome, the awning, the patio, or down to the beach.

**Absorption refrigeration works noiselessly.** Therefore, WAECO CombiCool won't disturb anyone's sleep, even if it's placed close to a bed. Enjoy your sleep and have a great day starting with a fresh breakfast!



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CombiCool CAS-60 4.16




| 3-way absorption refrigerator with 56-litre capacity | |
|---|---|
| Gross capacity | approx. 56 litres |
| Energy supply/consumption | 230 V AC/50 Hz/100 W/0.44 A, 12 V DC/100 W/8.3 A<br>liquefied petroleum gas 30 or 50 mbar/category I $_{3\,B/P}$ /<br>19 g/h (max.)<br>In Germany, the 30-mbar model may only be used in<br>combination with the ASK-30 connection set. |
| Cooling capacity | Up to 25°C below ambient temperature |
| Insulation | Full foam insulation in CFC-free polyurethane foam |
| Weight | approx. 20.5 kg |
| Material | Cabinet in coated sheet steel,<br>grip and switches in plastic |
| Colour | Silver/pale grey |
| Quality features | Piezo ignition, automatic condensation drainage, thermostat<br>regulation in the 230-volt mode, continuously variable<br>flame regulation in the gas mode, practical door lock<br>with vent option, 1 ice cube tray |
| Test marks | Certified to European Gas Appliance Directive 90/396/EEC,<br>e-approved to 95/54/EC (EMC vehicle guidelines) |

| Products | Ref. No. |
|---|---|
| CombiCool CAS-60 (30 mbar) | CAS-60-12/PB30 |
| CombiCool CAS-60 (50 mbar) | CAS-60-12/PB50 |
| Connection set for the 30-mbar model,<br>essential for use in Germany | ASK-30 |

Up to 25°C below ambient temperature

12/230 volts

Gas

One appliance for three energy sources: 12 volts, 230 volts or gas

### Robust all-round fridge for mobile use

The WAECO CombiCool CAS-60 comes in a robust casing to withstand the rigours of mobile use.

On top of that, this functional fridge has a lot of inner riches. For example, a generous **56-litre capacity** for food and drinks plus an adjustable door rack with room for 1.5-litre bottles. It can even make ice cubes for a long, cool drink after a day outdoors. An **ice-cube tray** is **included in the delivery kit.**

Door closed and in vent position

Versatile interior: the door racks can be adjusted in height and width (room for bottles up to 1.5 litres)

For extra comfort and convenience: an ice cube tray, adjustable grid shelves

Switches for battery/mains power and Piezo ignition, turning knobs for gas and power supply, gas ON indicator

Contents, specifications and availability are subject to change serving the technical improvement.

# Compressor cooling
## Powerful and durable

12/24 V DC + 230 V AC

### Cooling comfort wherever you want

**Whether on the road or at home: compressor cooling appliances are the best choice when performance counts.** Covering a temperature range from +10°C to –18°C (up to –15°C for the CK-40D model), compressor coolers by WAECO are just as powerful as a domestic fridge. The difference is they can be used wherever you want: in cars and motorhomes, in offices and holiday apartments ... and at home as well.

- **Most powerful and most durable cooling in mobile and stationary use**
- **Excellent cooling performance even at high ambient temperatures**
- **Suitable for deep-freezing**
- **Energy saving and superbly quiet operation**
- **Impeccable operation in inclined position**
- **Suitable for operation with a solar panel**



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFun

### High-performance basic cooler

Excellent cooling and freezing performance regardless of the ambient temperature. Sturdy, functional, energy-saving. 40 litres capacity, connection to 230 V AC mains socket – ideal for camping, leisure or as a stand-by freezer at home.

CoolFun CK-40D

Pages 42 – 43

## WAECO CoolFreeze

### Fridge/freezer with rechargeable battery

Super-cool – even if there's no external power available. Up to 18 hours independent operation with integrated battery, which can be recharged from the vehicle battery or a mains socket (optional mains adapter). With mains priority circuit and more comfort features.

CoolFreeze CF-32UP

Pages 44 – 45

## WAECO CoolFreeze

### High-tech coolers

Unbeatable performance in all mobile applications. Excellent cooling and deep-freezing even at extreme outside temperatures. Compact dimensions, energy-saving and quiet operation. Available in sizes from 18 to 49 litres, for 12/24 volts DC and 100 – 240 volts AC (all models from CF-35 upwards).

CoolFreeze CF-35 | CoolFreeze CF-50

CoolFreeze CF-18 | CoolFreeze CF-25 | CoolFreeze CF-40

Pages 46 – 51

### Professional coolers

Large-capacity coolers, 80 and 106 litres, respectively. Ideal for professional transport of foodstuffs, but also for large families (shopping, camping, fishing). Refrigeration and deep-freezing, valuable features and functions.

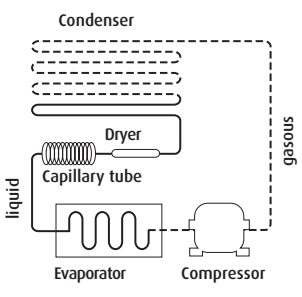
CoolFreeze CF-80 | CoolFreeze CF-110

Pages 52 – 53

## ↘ Compressor technology made in Germany

Compressor cooling appliances work with a CFC-free refrigerant that changes from liquid to gas as it flows through the evaporator. In the process the evaporator extracts heat from the refrigeration compartment – it's getting cold. The compressor draws in the gaseous refrigerant, compresses it and passes it on to the condenser. Here, the absorbed heat is released to the atmosphere. The refrigerant changes to the original liquid state and flows back to the evaporator, where the cycle starts again.

- **Problem-free operation with 12/24 volts DC and 100 – 240 volts AC (CoolFreeze series)**
- **Refrigeration and deep-freezing**
- **Excellent cooling performance even at extreme outside temperatures**
- **Minimal power consumption**
- **Integrated battery protection (CoolFreeze series)**
- **Ideal for solar operation (CoolFreeze series)**



Contents, specifications and availability are subject to change serving the technical improvement.

# For camping, home and leisure

## Powerful compressor cooler for 230 volts

**This portable fridge not only cools your drinks, it also keeps frozen food reliably "on ice". The temperature is continuously variable from +10°C to –15°C.**

**The WAECO CoolFun CK-40D compressor cooler can be a genuine alternative to an absorption unit.** Ready for operation on 12 volts, 230 volts or gas, absorption coolers are very flexible in use. However, their cooling performance will largely depend on the ambient temperature.

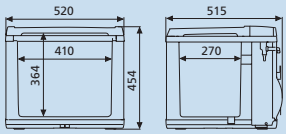
The **WAECO CoolFun CK-40D,** by contrast, provides **extraordinary energy efficiency** even at high outside temperatures. It is a safe bet for those looking for a **230-volt** portable cooler with excellent performance and **low power consumption.**



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFun CK-40D

4.21




| Powerful compressor cooler for 230 volts | |
|---|---|
| Gross capacity | approx. 40 litres |
| Voltage | 230 volts AC |
| Power consumption | approx. 75 watts |
| Average running time | 20% at +20°C ambient temperature,<br>25% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Temperature range | +10°C to –15°C |
| Insulation | CFC-free polyurethane foam |
| System | Powerful AC compressor, aluminium rollbond evaporator, statically ventilated wire tube condenser |
| Material | Cabinet in coated sheet steel,<br>base and upper components in plastic |
| Colour | Silver/anthracite |
| Weight | approx. 22 kg |
| Quality features | Refrigeration and deep-freezing, electronic thermostat with digital temperature readout, wear-free refrigeration cycle, lid with all-round rubber seal and magnetic closure, quick-chill functionality thanks to powerful AC compressor and extra-strong insulation |
| Test marks | TÜV/GS |

| Product | Ref. No. |
|---|---|
| CoolFun CK-40D, 230 volts | CK-40D-230 |

Temperature range
+10°C to –15°C

With digital
temperature readout

Powerful
AC compressor

Energy
A+
class

at +5°C
interior temperature
and +25°C
ambient temperature

## Cooler and freezer all in one: for indoors or out, every day and holiday

The multi-purpose cooler/freezer CoolFun CK-40D is a **highly efficient quick chiller.** It comes with a **powerful AC compressor, extra-strong insulation and an all-round rubber seal.** The cooling temperature is continuously variable from +10°C to –15°C. Wear-free refrigeration cycle. Ready for connection to 230 volts.

Easy-to-read digital temperature display

Room for it all: even for 2-litre bottles standing upright

Safe storage of sensitive food: deep-freezing up to –15°C

Contents, specifications and availability are subject to change serving the technical improvement.

# Truly independent

## Integrated battery-run fridge/freezer

**Well-proven on Australia's most beautiful and lonely beaches – and now available here: the new CoolFreeze CF-32UP offers refrigeration and deep-freezing up to –18°C. And that's for up to 18 hours without external power supply!**

Far from civilisation and even from your vehicle, the necessary power is delivered by the **battery integrated** in the compressor cooler. It is charged from the 12- or 24-volt car battery or the mains before use and simply switched on when necessary. The matching mains adapter comes as a separate accessory. An LED indicates the charging state of the battery.

At a capacity of **31 litres** the CF-32UP makes a high-performance camper fridge – and has a lot more to it: low-voltage protection to prevent excessive discharging of the vehicle battery, a digital display to show the temperature, extra carrying handles that can be attached as required, a fold-up lid as well as fridge slides and a fixing kit as optional accessories.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFreeze CF-32UP

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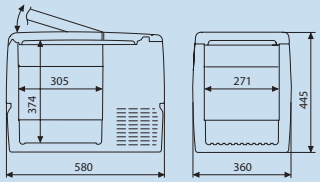


| Compressor cooler/freezer with rechargeable battery | |
|---|---|
| Gross capacity | approx. 31 litres |
| Voltage | **12/24 volts DC** |
| Power input | approx. 45 watts (cooling only)<br>approx. 72 watts (cooling and charging) |
| Charging time | 12 to 15 hours |
| Operation with battery | Up to 18 hours with fully charged battery<br>at +5°C interior and +32°C ambient temperature |
| Average running time | 18% at +20°C ambient temperature,<br>22% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, continuously variable via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, aluminium rollbond evaporator |
| Material | Cabinet: PP; lid: PE |
| Colour | Body: pale grey/dark grey; lid: dark grey |
| Weight | approx. 24 kg |
| Quality feature | Intelligent battery monitor to prevent excessive discharging of the vehicle battery, display with digital temperature readout, temperature adjustable with two buttons in 1°C steps, simultaneous charging and cooling, battery charging state indicated by LED, battery low warning |
| Scope of delivery | DC connection cable, wire basket, attachable carrying handles |
| Test marks | TÜV/GS, E-approved according to UN-ECE R10 directive |
| **Product** | **Ref. No.** |
| CoolFreeze CF-32 UP | 9105100001 |
| **Optional extras** | |
| Mains adapter 110 – 240 V › 24 V | MPS-50 |
| Fridge slide, long | SLD-060 |
| Fridge slide, wide | SLD-060W |
| Universal fixing kit | UFK-C |

Temperature range +10°C to –18°C

Suitable for solar operation

With integrated battery for up to 18 hours operation without external power

Fridge slides and fixing kit as accessories (pages 54 – 55)

230-volt connection with low-priced mains adapters (pages 98 – 101)

## Energy management by CoolFreeze CF-32UP

When power is supplied from the integrated battery as well as an external power source, the cooler will automatically prefer the external power source. If the battery is not fully charged, it will be recharged as long as external power is applied, or, until the external voltage falls below a defined level. The battery can be recharged without using the cooling function at the same time. The battery is activated when the cooler is switched on and no external power source is applied – on the beach, at the campsite, or out in the wild ...

An extra control panel for the battery: ON/OFF switch, LED display showing the battery charging state

A typical CoolFreeze convenience feature: display with digital temperature readout

Stays cool without external power: the battery-run CF-32UP

Contents, specifications and availability are subject to change serving the technical improvement.

Test winner! The truly portable cooler/freezer

# Compressor cooling “light”

## Cooling and deep-freezing: everything under control

**With the CoolFreeze CF-18, WAECO has successfully designed of a truly portable cooler/freezer.** This results, firstly, from the unit’s optimised inside and outside dimensions and, secondly, from the extremely compact dimensions of the high-tech Danfoss BD35F compressor. The bottom line is a full 18-litre capacity at an empty weight of only 11.5 kg.

A “flyweight” when compared with other compressor coolers, and convenient to transport with the sturdy carrying handle, this box is a “heavyweight champion” in terms of performance. Due to the reinforced insulation, the running times were, once again, significantly reduced, which is why the CF-18 is aptly referred to as the “energy saver”.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFreeze CF-18

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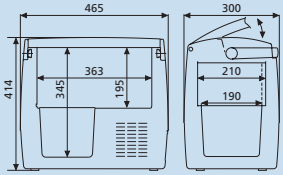



| Portable compressor cooler for refrigeration and deep-freezing | |
|---|---|
| Gross capacity | approx. 18 litres |
| Voltage | 12/24 volts DC |
| Power input | approx. 35 watts |
| Average running time | 10% at +20°C ambient temperature,<br>18% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C,<br>continuously variable via electronic thermostat |
| Insulation | CFC-free PU foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection adjustable for consumer or starter battery by means of a slide switch, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, aluminium rollbond evaporator |
| Material | Cabinet: PP; lid: PE |
| Colour | Body: pale grey/dark grey; lid: dark grey |
| Weight | 11.5 kg |
| Quality features | Detachable fold-up lid, sturdy carrying handle, vertical space for standing 2-litre bottles |
| Scope of delivery | DC connection cable |
| Test marks | TÜV/GS, e-approved according to 95/54/EC<br>(EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| CoolFreeze CF-18 | CF-018DC |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Insulating protective cover | IC-CF-18 |

**Temperature range +10°C to –18°C**

**Suitable for solar operation**

**Energy saver: short running times with reinforced insulation: consumes only 0.29 Ah/h to reach +5°C interior temperature at +20°C ambient temperature**

**Tailor-made insulating protective cover available as accessory (p. 56/57)**

**230-volt connection with low-priced mains adapters (p. 98 – 101)**

Easy to operate, secure locking mechanism

Robust, elegant, extremely comfortable carrying handle

Practical: lid can be folded up or detached

Vertical insertion of the folding grid:
space for standing 2-litre bottles

Salad underneath, maxi bottles above:
the horizontal folding grid arranges everything

Left: continuously variable electronic thermostat;
right: two-stage battery monitor

Contents, specifications and availability are subject to change serving the technical improvement.

# Premium boxes for all applications

## High-tech unlimited

Compressor technology at its best – that's the term to describe the **CoolFreeze series coolers CF-25 to CF-110. The high-performance appliances can be operated on almost any mains network in the world.** Whether 12, 24, 100 or 240 volts – the integrated power supply unit recognises each voltage and adjusts itself accordingly (the CF-25 uses a separate mains adapter).

CoolFreeze CF series coolers feature optimised dimensions and are easy to transport. Their generous capacity makes them ideal for use in trucks, motorhomes and caravans as well as on boats or yachts.

Optional extras include **fridge slides** for convenient slide-out access and a **fixing kit** for a firm and secure hold in the vehicle.

**CoolFreeze CF-25 to CF-110 – the significant benefits at a glance:**

- **CF special electronics with digital temperature readout**
- **12/24 volts DC and 100 – 240 volts AC** (CF-25 with separate mains adapter)
- **Excellent cooling performance even in high temperatures**
- **Deep-freeze functionality**
- **Energy-saving and superbly quiet running**
- **Impeccable operation in inclined positions**
- **Suitable for solar operation**



Contents, specifications and availability are subject to change serving the technical improvement.

Extremely energy efficient

**CF-25**
12/24 volts DC

**CF-35**
12/24 volts DC +
100 – 240 volts AC

**CF-40**
12/24 volts DC +
100 – 240 volts AC

**CF-50**
12/24 volts DC +
100 – 240 volts C

## Test winner!

## ↘ CF special electronics with digital temperature readout, soft start and turbo cooler

The six CoolFreeze coolers CF-25 to CF-110 are equipped with the CF special electronics system featuring the following functions:

- **Intelligent, automatic turbo cooler**
- **3-stage battery protection to be set on the digital display**
- **4-digit display readout**
- **Digital readout in Celsius or Fahrenheit**
- **Free temperature setting on the display**
- **Display of current interior temperature**
- **Status and error indication by 2 separate LEDs**
- **Memory function saves the last settings**

**Turbo power with economy.** The CF special electronics system gives the compressor a soft and power-saving start at 2500 rpm. If the preset temperature is not reached within a short period of time or a temperature below –12°C has been set, the turbo cooler switches on automatically to boost the compressor speed. As soon as a preset temperature up to –12°C has been reached, the system switches back to economy mode (except if a temperature below –12°C has been set).
**The outcome:** fast yet economical cooling from +10°C to –18°C.

Standard interior light
for a clear overview in the dark

Ready for connection to 12/24 volts DC and 110 – 240 volts AC with mains priority circuit (except CF-25)

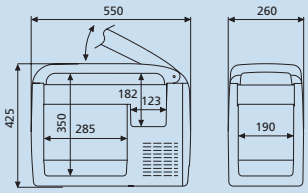
A smart organiser: detachable wire basket (all models except CF-35); CF-40/CF-50: wire basket with grid divider

Convenient transport with ergonomically shaped recessed grips and sturdy, detachable handles (CF-25: recessed grips only)

› Fridge slides and fixing kit as accessory (p. 54/55) › Insulating protective covers as accessory (p. 56/57)

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFreeze CF-25 4.10




| Compressor cooler for refrigeration and deep-freezing with CF special electronics | |
|---|---|
| Gross capacity | approx. 23 litres (19 l for refrigeration/deep-freezing, 4 l for fresh food) |
| Voltage | **12/24 volts DC** |
| Power input | approx. 35 watts |
| Average running time | 15% at +20°C ambient temperature,<br>19% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low voltage protection adjustable for consumer and starter battery via electronic system, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, aluminium rollbond evaporator |
| Material | Cabinet: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: dark grey |
| Weight | approx. 12.5 kg |
| Quality features | Detachable lid (lid mount at the front), interior light, vertical space for standing 2-litre bottles, CF special electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | DC connection cable, detachable wire basket |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolFreeze CF-25 | CF-025DC |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Universal fixing kit | UFK-C |
| Insulating protective cover | IC-CF-25 |

Temperature range +10°C to –18°C

Suitable for solar operation

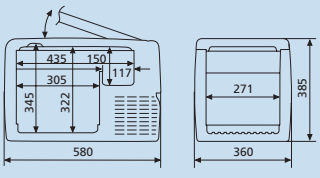
Slim body – minimal space consumption

Protective cover and fixing kit as accessories (pages 54 – 57)

230-volt connection with low-priced mains adapters (p. 98 – 101)

CF special electronics with soft start and turbo cooler

## WAECO CoolFreeze CF-35 4.10



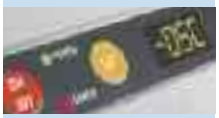

| Compressor cooler for refrigeration and deep-freezing with CF special electronics | |
|---|---|
| Gross capacity | approx. 31 litres (26.5 l for refrigeration/deep-freezing, 4.5 l for fresh food) |
| Voltage | **12/24 volts DC and 100 – 240 volts AC** |
| Power input | approx. 45 watts |
| Average running time | As for CF-25 |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | As for CF-25 |
| Material | Cabinet: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: dark grey |
| Weight | approx. 15 kg |
| Quality features | Detachable lid (lid mount at the front), interior light, vertical space for standing 1.5-litre bottles, CF special electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | DC and AC connection cables, evaporator grille, detachable carrying handles |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolFreeze CF-35 | CF-035AC |
| **Optional extras** | |
| Fridge slide, long | SLD-060 |
| Fridge slide, wide | SLD-060W |
| Universal fixing kit | UFK-C |
| Insulating protective cover | IC-CF-35 |

Temperature range +10°C to –18°C

Suitable for solar operation

12/24 volts DC and 100 – 240 volts AC

Protective cover, fridge slides and fixing kit as accessories (pages 54 – 57)



CF special electronics with soft start and turbo cooler



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFreeze CF-40

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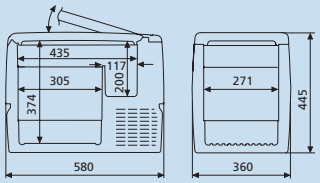



| Compressor cooler for refrigeration and deep-freezing with CF special electronics | |
|---|---|
| Gross capacity | approx. 37 litres (31 l for refrigeration/deep-freezing, 4 l for fresh food) |
| Voltage | **12/24 volts DC and 100–240 volts AC** |
| Power input | approx. 45 watts |
| Average running time | 18% at +20°C ambient temperature,<br>22% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | As for CF-25 |
| Material | Cabinet: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: dark grey |
| Weight | approx. 16 kg |
| Quality features | Detachable lid (lid mount at the front), interior light,<br>vertical space for standing 2-litre bottles, CF special<br>electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | DC and AC connection cables, removable wire basket,<br>detachable carrying handles |
| Test mark | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolFreeze CF-40 | CF-040AC |
| **Optional extras** | |
| Fridge slide, long | SLD-060 |
| Fridge slide, wide | SLD-060W |
| Universal fixing kit | UFK-C |
| Insulating protective cover | IC-CF-40 |

Temperature range +10°C to –18°C

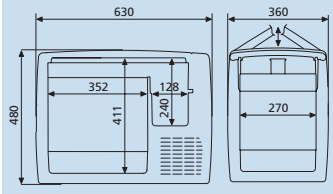
Suitable for solar operation

12/24 volts DC and 100 – 240 volts AC

Protective cover, fridge slides and fixing kit as accessories (pages 54 – 57)

## WAECO CoolFreeze CF-50

4.10




| Compressor cooler for refrigeration and deep-freezing with CF special electronics | |
|---|---|
| Gross capacity | approx. 49 litres (41 l for refrigeration/deep-freezing, 8 l for fresh food) |
| Voltage | **12/24 volts DC and 110 – 240 volts AC** |
| Power input | approx. 45 watts |
| Average running time | 15% at +20°C ambient temperature,<br>19% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | As for CF-25 |
| Material | Cabinet: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: dark grey |
| Weight | approx. 18 kg |
| Quality features | Detachable lid (plug-in lid mount, variable left/right),<br>interior light, vertical space for standing 2-litre bottles,<br>CF special electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | As for CF-40 |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolFreeze CF-50 | CF-050AC |
| **Optional extras** | |
| Fridge slide, long | SLD-060 |
| Fridge slide, wide | SLD-060W |
| Universal fixing kit | UFK-C |
| Insulating protective cover | IC-CF-50 |

CF-50: Detachable lid, folds up transversely

CF special electronics with soft start and turbo cooler

# Jumbo coolers for professional use

## True greatness

**Our jumbo-size high-tech coolers, CoolFreeze CF-80 and CoolFreeze CF-110, are ideal for those whose business is related to food transport.** Just like all other CF appliances, they offer normal refrigeration and deep-freezing, the DC + AC feature as well as CF special electronics with valuable extra functions.

### Perfect down to the last detail

- Soft-touch operating panel with robust membrane keypad
- Secure locking mechanism
- Sturdy, detachable carrying handles
- Interior light as standard
- Detachable fold-up lid, variable lid mounts
- Maximum stability with injection moulded parts
- Slides and insulating protective covers as accessory (p. 54 – 57)

### Professional Cooling on the Move

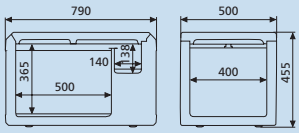
- For professional use in medicine, agriculture and food processing WAECO offers custom coolers in various sizes and functionality. For detailed information, please refer to the WAECO catalogue "Professional Cooling on the Move".



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolFreeze CF-80

4.10




| Large-capacity cooler with CF special electronics | |
|---|---|
| Gross capacity | approx. 80 litres (73 l for refrigeration/deep-freezing, 7 l for fresh food) |
| Voltage | **12/24 volts DC and 100 – 240 volts AC** |
| Power input | approx. 65 watts |
| Average running time | 12% at +20°C ambient temperature,<br>22% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | Fully hermetic Danfoss BD50F compressor with integrated control electronics, low voltage protection adjustable for consumer and starter battery via electronic system, electronic fuse/automatic reverse pole protection, dynamically ventilated fin condenser, aluminium rollbond evaporator |
| Material | Cabinet: coated sheet steel, top and base: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: pale grey |
| Weight | approx. 31 kg |
| Quality features | Detachable lid (screw-on lid mount, variable left/right), sturdy latches and hinges, interior light, vertical space for 2-litre bottles, CF special electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | DC and AC connection cables, removable wire basket, detachable carrying handles |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. | |
|---|---|---|
| CoolFreeze CF-80 | CF-080AC | **Optional extras:** pages 54 – 57 |

Temperature range +10°C to –18°C

Suitable for solar operation

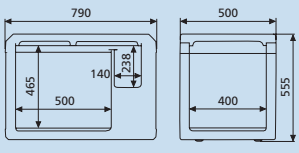
12/24 volts DC and 100 – 240 volts AC

Jumbo coolers for private and professional use

Fridge slides and protective covers as accessories (pages 54 – 57)

## WAECO CoolFreeze CF-110

4.10




| Large-capacity cooler with CF special electronics | |
|---|---|
| Gross capacity | approx. 106 litres (93 l for refrigeration/deep-freezing, 13 l for fresh food) |
| Voltage | **12/24 volts DC and 100 – 240 volts AC** |
| Average power input | approx. 65 watts |
| Average running time | 14% at +20°C ambient temperature,<br>25% at +32°C ambient temperature<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | +10°C to –18°C, free temperature setting via electronic thermostat<br>**with digital temperature readout** |
| Insulation | CFC-free PU foam |
| System | As for CF-80 |
| Material | Cabinet: coated sheet steel, top and base: PP, lid: PE |
| Colour | Body: pale grey/dark grey, lid: pale grey |
| Weight | approx. 33 kg |
| Quality features | Detachable lid (screw-on lid mount, variable left/right), sturdy latches and hinges, interior light, vertical space for 2-litre bottles, CF special electronics with soft start and turbo cooler (p. 49) |
| Scope of delivery | DC and AC connection cables, removable wire basket, detachable carrying handles |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. | |
|---|---|---|
| CoolFreeze CF-110 | CF-110AC | **Optional extras:** pages 54 – 57 |

CF special electronics with soft start and turbo cooler

# Fixing kit and slides for CoolFreeze coolers

## Accessories for safe and convenient handling

**Your cooler is going to stay put – even during your most daring driving and braking manœuvres**. The **universal fixing kit** keeps your CoolFreeze cooler safe and secure in any situation.

With a single handed operation your cooler clicks firmly into place – and it's released from the frame just as quickly. Suitable for CoolFreeze models CF-25 to CF-50.

**WAECO fridge slides** are optional accessories well worth having. They enable easy loading and unloading, even if the cooler is filled to the brim. The appliance gently slides into the under-bay storage of your camper and out again when you need it.

During the journey, the fridge slides keep the cooler securely in place.

### Convenient slide-out access

Whether in the under-bay storage of your camper or onboard your yacht – the **fridge slide** guarantees fast and easy access to your cooler at all times. Depending on your onboard situation, you can choose the **long or wide** version.

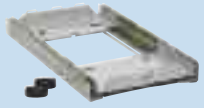
Fridge slides are available in two sizes to match CoolFreeze models **CF-32UP, CF-35 to CF-50 and CF-80/-110,** respectively. The slides are firmly secured on the vehicle floor, and are fastened to the slides with **sturdy tie-down straps.**



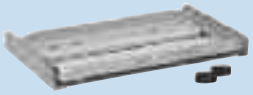
Contents, specifications and availability are subject to change serving the technical improvement.

## Fridge slides, long and wide version

4.10



SLD-060



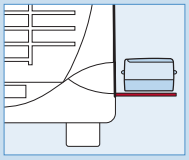
SLD-060W

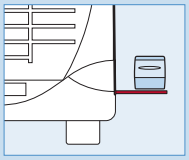
**Fridge slides for CF-32UP/CF-35/CF-40/CF-50**
› For fastening of WAECO CoolFreeze portable coolers in vehicles and for convenient loading and unloading

| | |
|---|---|
| Material/colour | Powder coated metal/grey |
| Weight | 11.5 kg |
| Dimensions (W x H x D) mm | **SLD-060**<br>Retracted: 421 x 85.4 x 760<br>Extended: 421 x 85.4 x 1418<br>**SLD-060W**<br>Retracted: 789 x 85.3 x 475<br>Extended: 789 x 85.3 x 938 |
| Quality features | 50 kg max. load capability, tie-down straps included in the set |

| Products | Ref. No. |
|---|---|
| Fridge slide, long for CF-32UP/CF-35/40/50 | SLD-060 |
| Fridge slide, wide for CF-32UP/CF-35/40/50 | SLD-060W |

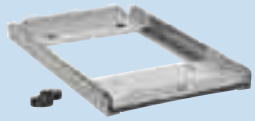
Convenient slide-out access



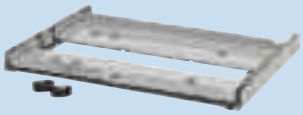


## Fridge slides, long and wide version

4.10



SLD-110



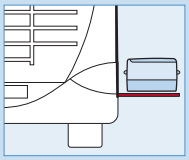
SLD-110W

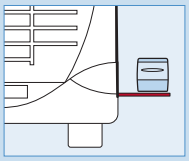
**Fridge slides for CF-80/CF-110**
› For fastening of WAECO CoolFreeze portable coolers in vehicles and for convenient loading and unloading

| | |
|---|---|
| Material/colour | Powder coated metal/grey |
| Weight | 19.4 kg |
| Dimensions (W x H x D) mm | **SLD-110**<br>Retracted: 574 x 85.4 x 909<br>Extended: 574 x 85.4 x 1677<br>**SLD-110W**<br>Retracted: 939 x 85.3 x 690<br>Extended: 939 x 85.3 x 1368 |
| Quality features | 100 kg max load capability, tie-down straps included in the set |

| Products | Ref. No. |
|---|---|
| Fridge slide, long for CF-80/110 | SLD-110 |
| Fridge slide, wide for CF-80/110 | SLD-110W |

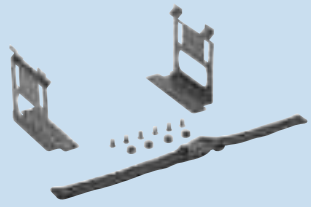
Convenient slide-out access

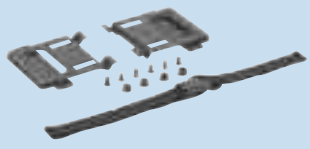




## Universal fixing kit

4.10



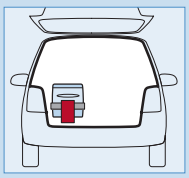


**For CoolFreeze CF-25, CF-32UP, CF-35, CF-40, CF-50**
› For a firm and secure hold of WAECO CoolFreeze portable coolers in vehicles

| | |
|---|---|
| Material | Powder coated metal |
| Colour | Black |
| Scope of delivery | Two frame sections, adjustable strap with snap lock, set of screws |

| Product | Ref. No. |
|---|---|
| Universal fixing kit | UFK-C |

For a firm and secure hold in the vehicle



# Protective covers for CoolFreeze coolers

## The functional all-round protection for your coolers

Does the zest for outdoor adventure take you over rough terrain at times? Go ahead, the **insulating protective cover** makes your CoolFreeze cooler fit for toughest challenges. The cover protects the valuable appliance from moisture, dust and dirt. It also provides effective insulation, improving the unit's cooling capacity by a full 2°C – at the same energy consumption. The robust and functional all-round protection is available for CoolFreeze models CF-18 to CF-110.

### Protective covers: perfect in every detail

- Lid and base detachable with zip
- Fixing rings to secure the box safely in the vehicle
- Openings for carrying handles and sockets
- Direct access to controls and connection sockets
- Practical outside pockets for small items
- Top insulation in aluminium coated polyester



Contents, specifications and availability are subject to change serving the technical improvement.

## Insulating protective covers

4.10

**High quality insulating protective covers for CoolFreeze CF-18, CF-25, CF-35, CF-40, CF-50, CF-80, CF-110**

Insulating protective covers with detachable lid and base. Outside pockets to store small items. Four fixing rings to secure the box safely in the vehicle.

| | |
|---|---|
| Material, outside | High-quality silver-grey Oxford nylon, lid and base in robust, rubber-coated, black nylon |
| Material, inside | Aluminium coated polyester |
| Colour, sides | Silver grey |
| Colour, lid and base | Black |

| | Dimensions (W x H x D) folded flat | Weight |
|---|---|---|
| IC-CF-18 | 30 x 10 x 50 cm | approx. 1.0 kg |
| IC-CF-25 | 30 x 10 x 60 cm | approx. 1.1 kg |
| IC-CF-35 | 38 x 10 x 60 cm | approx. 1.3 kg |
| IC-CF-40 | 38 x 10 x 60 cm | approx. 1.5 kg |
| IC-CF-50 | 40 x 15 x 68 cm | approx. 2.0 kg |
| IC-CF-80 | 46 x 12 x 78 cm | approx. 2.2 kg |
| IC-CF-110 | 50 x 14 x 78 cm | approx. 2.4 kg |

| Products | Ref. No. |
|---|---|
| Protective cover for CoolFreeze CF-18 | IC-CF-18 |
| Protective cover for CoolFreeze CF-25 | IC-CF-25 |
| Protective cover for CoolFreeze CF-35 | IC-CF-35 |
| Protective cover for CoolFreeze CF-40 | IC-CF-40 |
| Protective cover for CoolFreeze CF-50 | IC-CF-50 |
| Protective cover for CoolFreeze CF-80 | IC-CF-80 |
| Protective cover for CoolFreeze CF-110 | IC-CF-110 |

Extra protection and insulation for your coolers

Direct access to the controls ...

... and connection sockets

Practical outside pockets for small items

Top insulation in aluminium coated polyester

Contents, specifications and availability are subject to change serving the technical improvement.

# Ready-to-fit fridges
## Concentrated cooling power

### Compressor coolers for permanent fitting

Concentrated cooling power in the smallest of space: WAECO CoolMatic built-in compressor coolers turn every nook and cranny into useful and comfortable storage. The perfect refrigeration solution for caravans, boats, trucks ... and wherever else every square inch counts.

Compact, powerful and equipped for convenience, CoolMatic compressor coolers add a refreshing touch to your travels. They will quickly become an indispensable part of the vehicle interior.



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic

### Built-in coolers

WAECO CoolMatic CB built-in coolers are opened from the top. Featuring detachable cooling units, they are extremely compact and therefore ideal for installation in kitchenettes or benches.

CoolMatic CB-36 CoolMatic CB-40 CoolMatic CB-110

Pages 60 – 61

## WAECO CoolMatic

### Built-in drawer fridges

WAECO CoolMatic CD built-in drawer fridges can use low-height storage space for powerful and convenient compressor cooling. Also suitable for outside storage compartments, e.g. in caravans or motorhomes.

CoolMatic CD-30 CoolMatic CD-30W

Pages 62 – 63

Contents, specifications and availability are subject to change serving the technical improvement.

### CoolMatic CB-36 / CB-40 / CB-110

A matching built-in cooler for every demand: **CoolMatic CB-36** and **CB-40** with **36 or 40 litres volume for refrigeration and deep-freeze cooling, CoolMatic CB-110** with **100 litres useful capacity for refrigeration**. All three units owe their extraordinary performance to the tried and tested Danfoss BD35F compressor. This high-tech compressor ensures **minimal power consumption, impeccable operation in inclined positions and superbly quiet running**.

Designed for **connection to 12/24 volts** (automatic switch-over), the appliances are perfectly suited for operation with a solar unit. The energy required for cooling can just as easily come from the domestic mains. All you have to do is connect the low-priced mains adapter.

# Built-in coolers for mobile kitchens

## Cooling comfort in confined spaces

**There's no space left on board your motorhome or yacht to accommodate a refrigerator?** Take a look at CoolMatic CB, three built-in coolers specifically designed for permanent fitting in confined spaces. Where height and width is limited, they use the depth of the cupboard space instead. In this way, they make optimum use of the available space, while perfectly matching the design of the interior.

A smart solution in confined spaces: the cooling unit can be fitted to the side of the cooler (left/right), or up to 2.5 metres away (up to 1.5 metres with CB-36 and CB-40).

### Compact and adaptable

One of them is bound to fit the space: the CoolMatic CB-36 with the cooling unit attached to the side, or the CB-40 (or CB-110) with the attachment underneath. Where space is restricted, the cooling units can be detached and installed up to 1.5 m away (or 2.5 m with the CB-110).

On request, the lids can be supplied with decors to match the interior design of your onboard kitchen. This will give an aesthetically pleasing solution.

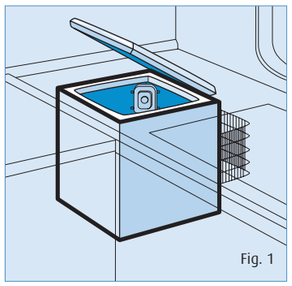


Fig. 1

Plenty of space lengthwise?
Then take the CB-36 with the cooling unit attached to the side. (Fig. 1)

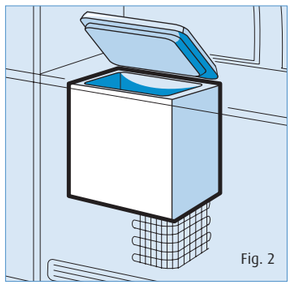


Fig. 2

Space to spare in the depth?
That makes the CB-40 the ideal solution. (Fig. 2)

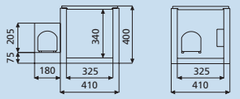


Contents, specifications and availability are subject to change serving the technical improvement.

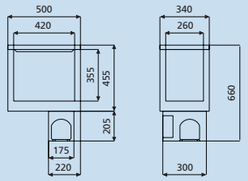


## WAECO CoolMatic CB-36 / CB-40 / CB-110 4.12

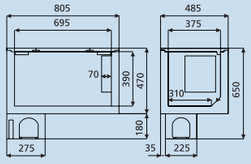
CB-36



CB-40



CB-110



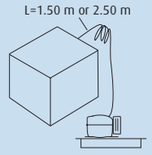

| Built-in coolers for mobile kitchens | | | |
|---|---|---|---|
| | **CB-36** | **CB-40** | **CB-110** |
| Gross capacity | approx. 36 litres | approx. 40 litres | approx. 100 litres |
| Voltage | 12/24 volts DC | 12/24 volts DC | 12/24 volts DC |
| Average power consumption | approx. 45 watts | approx. 45 watts | approx. 60 watts |
| Average running time | 15% at +20°C ambient temperature, 25% at +32°C ambient temperature, both at +5°C interior temperature | 17% at +20°C ambient temperature, 27% at +32°C ambient temperature, both at +5°C interior temperature | 25% at +20°C ambient temperature, 40% at +32°C ambient temperature, both at +5°C interior temperature |
| Power consumption | Power input x average running time | | |
| Temperature range | From normal refrigeration to **-deep-freezing | | +10°C to 0°C |
| Insulation | 40 mm solid polyurethane | 40 mm solid polyurethane | 50 mm solid polyurethane |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection<br>**CB-36:** detachable cooling unit (1.5 m supply cable), three-sided, statically ventilated wire tube condenser mounted on a bottom plate, foamed tubular evaporator (inside, invisible)<br>**CB-40:** detachable cooling unit (1.5 m supply cable), three-sided, statically ventilated wire tube condenser mounted on a bottom plate, foamed aluminium rollbond evaporator (invisible)<br>**CB-110:** detachable cooling unit (2.5 m supply cable), dynamically ventilated fin condenser mounted on a bottom plate, high-performance air circulating fin evaporator in white plastic housing with brushless fan | | |
| Material | Outside: zinc coated sheet steel, inside: stainless steel, base: shock-resistant plastic | | |
| Colour | Body: grey, decor panel: pale grey | | |
| Weight | 18.5 kg | 20.0 kg | 27.9 kg |
| Quality features | **CB-36 / CB-40:** separate lid inside with sealing and insulation<br>**CB-110:** separate, three-section lid inside with sealing and insulation, interior light, detachable wire baskets, outstanding cooling performance at minimal power consumption with high-performance air circulating fin evaporator, rapid-chill capability with air circulating operation, continuously variable thermostat (integrated in the evaporator housing) | | |
| Test mark | e-approved according to 95/54/EC (EMC guidelines for vehicles) | | |

| Products | Ref. No. |
|---|---|
| CoolMatic CB-36 | CB-036 |
| CoolMatic CB-40 | CB-040 |
| CoolMatic CB-110 | CB-110 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

From normal refrigeration to ** -deep-freezing

Suitable for solar operation

Cool solutions in confined spaces

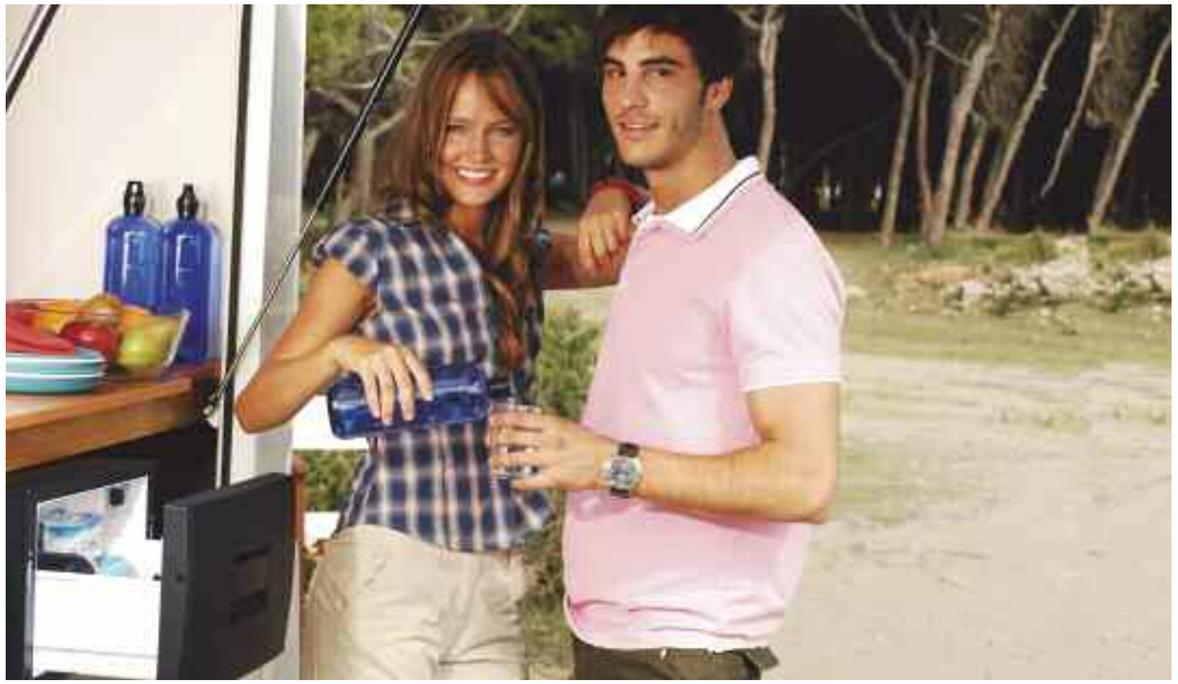



Detachable cooling unit (1.5 m or 2.5 m supply cable)

Vertical space for standing 2-litre bottles

230-volt connection with low-priced mains adapters (p. 98 – 101)

Contents, specifications and availability are subject to change serving the technical improvement.



# Drawer fridge – inside or out

## 30°C in the shade – refreshment from the drawer

**Different though they are, caravans, boats and trucks have one thing in common: onboard space is limited, and you've often no space to spare for a cooler.** The trick is to make intelligent use of the available space. This is where our CoolMatic CD-30 drawer fridge provides a smart solution.

**Relaxing in the sun, but no space to spare for snacks and drinks?** Help is underway, thanks to WAECO. The compressor powered drawer fridge, **CoolMatic CD-30**, turns empty niches in caravans, boats and trucks into a practical cold store.

It can be fitted wherever unutilised space is available – in mobile kitchens, under the seat, even in an **outside storage compartment** of your camper vehicle. Now you've got an outdoor cooler in your awning – enjoy your picnic at the campsite!



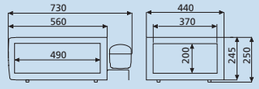
Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic CD-30 4.10

CD-30
black front

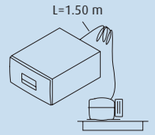
CD-30W
white front




| Built-in drawer fridge – inside or out | |
|---|---|
| Gross capacity | approx. 30 litres |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 40 watts |
| Temperature range | +12°C to –2°C |
| Average running time | 20% at +20°C ambient temperature,<br>40% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection for starter battery, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, aluminium rollbond evaporator, heat dissipation to the outside with brushless, wear-free fan |
| Material | Sturdy metal housing, drawer of injection-moulded parts |
| Colour | **CD-30:** black<br>**CD-30W:** black, front white |
| Weight | approx. 18 kg |
| Quality features | Convenient access with easy-pull drawers running on roller bearing slides, temperature regulation with continuously variable thermostat, unlocking and opening with a single movement, safe locking mechanism. **A smart solution in confined spaces: the cooling unit can be fitted to the side of the cooler (left/right), or up to 1.5 metres away** |
| Test marks | TÜV/GS, e-approved according to 95/54/EC<br>(EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CD-30 | CD-030DC |
| CoolMatic CD-30W | CD-030DCW |
| Stainless steel installation frame, four parts with screws | EST-0030 |
| **Additional optional extra** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110–240 V › 24 V | MPS-35 |

**Temperature range +12°C to –2°C**




**A smart solution in confined spaces: the cooling unit can be fitted separately**

**230-volt connection with low-priced mains adapters (p. 98–101)**

## Fits in where other fridges can't

With the sturdy **stainless steel installation frame** the CD-30 can be fitted in an optimal way. Convenient access to cool snacks and drinks with easy-pull drawers running on **roller bearing slides**. Unlocking and opening with a single movement. Ideal on the move: the **secure closing mechanism**.

**Continuously variable thermostat**

Contents, specifications and availability are subject to change serving the technical improvement.

# Compressor refrigerators
## All the freedom you need

### Different product lines to suit varying demands

It takes a wide and diverse range of refrigerators to meet our customers' individual demands. The WAECO CoolMatic series is perfect for choice. It provides **tailor-made solutions** for any demand and onboard situation.



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic CR/CR Chrome

### Exclusive homelike cooling comfort

**Tropical-rated compressor refrigerators** with **premium equipment**: separate *** freezer compartment, double door lock, interior light and a lot more. Perfect, functional design in stainless steel look or chrome finish.

Pages 66–73

## WAECO CoolMatic CRP-40/CRF-50

### Compact specialists

39-litre capacity and cool CR looks: the new **CRP-40 built-in refrigerator** was designed for smaller yachts and motorhomes. **47 litres extra deep-freeze capacity**: the **CRF-50 freezer** is the ideal complement to your onboard fridge.

Pages 74–75

## WAECO CoolMatic RSD

### Fridge/freezer side-by-side solution

A **fridge** and a **freezer** with the same look and exactly the same dimensions. Side by side, they form a **powerful fridge/freezer combo**, while they can also be used separately.

Pages 76–77

## WAECO CoolMatic RPD

### Cool professionals for demanding people

**Jumbo-size cooling appliance, tailor-made for the high-end marine market.** On its outside, an extra-thick insulating layer to resist any change in ambient temperatures. Inside, just as perfectly equipped as a household refrigerator.

Pages 78–79

## WAECO CoolMatic MDC

### Camper fridges with absorption dimensions

**The same dimensions as commonly used absorption refrigerators** – but considerably **more useful capacity and cooling performance.** MDC refrigerators need no gas supply, and no ventilation either. Ideal for **operation with a solar unit.**

Pages 80–83

## WAECO CoolMatic HDC

### Jumbo-size cooling on the move

With **capacities ranging from 160 to 220 litres**, these low-priced units are **as big as household refrigerators**. Useful extras: spacious, pull-out multiboxes and **two separate doors for the cooling and freezing compartments** (HDC-190 and HDC-220). The perfect refrigerators for yachts and commercial shipping.

Pages 84–85

Contents, specifications and availability are subject to change serving the technical improvement.

New CoolMatic CR in chrome

# A sparkling sight

## Premium fridges in stainless look or chrome finish

**The exclusive CoolMatic CR refrigerators are perfect for people who like to travel First Class. Whether in elegant matt-silver or in the new, luxurious chrome finish, CoolMatic CR is setting new standards in terms of design, equipment, technology and finish.**

One of the outstanding features of CoolMatic CR fridges is their high-standard interior, which matches that of a domestic fridge in every respect. Bottle holder, trays, vegetable compartment – everything you are used to is there. The fact that the high-performance compressor units are tropical-rated equivalent to DIN EN ISO 7371 is another asset. The separately insulated *** freezer compartment keeps –18°C even at an ambient temperature of +43°C, while the rest of refrigerator maintains the desired +5°C to +7°C.

The double door locking (top and bottom) provides safety in every position, even on a tilt. Needless to say, the door can be fixed either side and provides the “close-or-vent” double function.

Treat yourself to first-class refrigeration – you’re worth it. Take the CoolMatic CR on board and enjoy the same exclusive cooling convenience you have at home!



Contents, specifications and availability are subject to change serving the technical improvement.



# Premium refrigerators for yachts and caravans

2006 DAME DESIGN AWARD METS CATEGORY WINNER

## WAECO CoolMatic CR Chrome

Tropical-rated! Top cooling performance at +43°C ambient temperature

2006 DAME DESIGN AWARD METS CATEGORY WINNER

## WAECO CoolMatic CR

### CoolMatic CR / CR Chrome

- Four models each with capacities from 48 to 108 litres and **enhanced equipment**: bottle holder, functional storage trays (CR-110 with drawers)
- Ideal temperature regulation for **refrigeration and deep-freezing**
- Separately insulated *** **freezer compartment**
- **Optimal temperature distribution** due to additional evaporator integrated in the interior
- Condensation drainage via hose connection or collection tank
- Double door lock (top/bottom), **variable door mounts**
- Door lock with dual function (locking/ventilation)
- **Easy-to-change decor panel**
- **Tropical-rated** equivalent to ISO 7371
- High-performance cooling technology: **Danfoss BDF compressor**

### CoolMatic CR Chrome

- **Installation frame** in **stainless steel**
- **Front panel** in **brushed stainless steel**
- **Chrome-plated door frame**

Contents, specifications and availability are subject to change serving the technical improvement.

CoolMatic CR-110

1. **Double door lock, top and bottom**
2. **Separately insulated *** freezer compartment**
3. **Functional surfaces and trays**
4. **Interior light**
5. **Recessed door grips**
6. **Bottle holder**

## Under-counter cooling comfort – just like at home

Elegant, aesthetic design: **brushed stainless steel looks** outside, **Cool Blue** inside. The well organised interior provides capacities of **48 to 108 litres**, depending on the model. Ease of use enhanced with clever extras, such as **bottle holders** and additional **storage trays**, both open and closed.



Contents, specifications and availability are subject to change serving the technical improvement.



# First-class refrigeration – intelligent, functional, powerful

## Premium design with Cool Blue light inside

You prefer to travel in style? The perfect finish and high-grade interior of CoolMatic CR refrigerators is very impressive. First-class materials, sparkling surfaces and the aesthetic Cool Blue interior light are all part of the elegant CoolMatic CR design. A feast for the eye.

## Recessed door grips

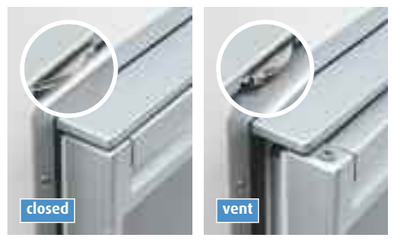
Comfort to get hold of: the recessed door grips allow for gentle and easy opening of CoolMatic doors. Slightly lifting the grip is enough to unlock the door. You can feel the difference: there is no protruding handle to catch yourself on. Slim grips blend harmoniously with the elegant design of the refrigerator doors.

## Functional cooling space

The interior design of CoolMatic CR refrigerators is both intelligent and functional. A large bottle holder and a lidded container on the inside door, a vegetable bin and a storage tray provide ample space for fresh food. The CR-110 additionally features an open door tray, a second storage tray and two drawers.

## Separately insulated *** freezer compartment – tropical-rated

Cool cocktails with ice-cubes? Any time! All CoolMatic CR refrigerators feature a separately insulated *** freezer compartment. The thickly foamed evaporator and the extra-strong insulation ensure that a constant –18°C is maintained in the freezer compartment and the desired +5°C to +7°C in the rest of the refrigerator – even when ambient temperatures reach tropical ratings (+43°C).




## Patented lock: close or vent

The doors of CoolMatic CR refrigerators feature a patented locking mechanism. In cooling mode, the door is fastened top and bottom for double safety. Thus CoolMatic refrigerators will be firmly shut tight – even if the fridge contents push against the door from inside. The "vent" position keeps the door slightly open and provides ventilation when the fridge is not in use.

## Installation with standard or flush-mount frame

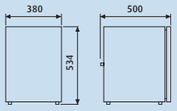
To install a CoolMatic CR refrigerator in your kitchen or galley choose the standard or flush-mount installation frame from WAECO's range of accessories. Both options will keep your refrigerator securely in place. Using the flush-mount frame makes for a particularly elegant solution though, as the refrigerator door is fitted flush with the other units rather than protruding.

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolMatic CR-50 Chrome 4.24

NEW

**CR-50 Chrome**
**Built-in dimensions** (W x H x D)
380 x 534 x 447 mm (without door)
**With standard frame:**
384 x 536 x 447 mm
**With flush-mount frame:**
406 x 536 x 495 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 48 litres including 5-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 40 watts |
| Current consumption | 1.4 Ah/h at +25°C ambient temperature<br>1.7 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, mechanical, continuously variable thermostat |
| Material | Stainless steel fittings and decor panel, plastic interior, door frame chrome plated, body with coated metal frame |
| Colour | Body: black, door frame: chrome, decor panel: brushed stainless steel |
| Weight | 19 kg |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks right/left, door with double lock (top/bottom) and dual function (locking/ventilation), separately insulated *** freezer compartment, additional, foamed rear-wall evaporator in the interior, easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-50 Chrome | CR-0050ST |
| Standard installation frame for CR-50 Chrome | EST-0050ST |
| Flush-mount installation frame for CR-50 Chrome | EFM-0050ST |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

Tropical-rated (equivalent to ISO 7371)

Condensation drainage via hose connection or collection tank

Separately insulated *** freezer compartment

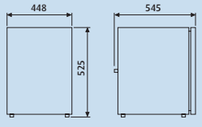
4 mounting points for fastening from inside

Standard or flush-mount installation frame available as accessory

230-volt connection with low-priced mains adapters (p. 98–101)

## WAECO CoolMatic CR-65 Chrome 4.24

**CR-65 Chrome**
**Built-in dimensions** (W x H x D)
448 x 525 x 492 mm (without door)
**With standard frame:**
452 x 527 x 492 mm
**With flush-mount frame:**
474 x 527 x 540 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 64 litres including 7.2-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 45 watts |
| Current consumption | 1.6 Ah/h at +25°C ambient temperature<br>1.9 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | As for CR-50 Chrome |
| Material | Stainless steel fittings and decor panel, plastic interior, door frame chrome plated, body with coated metal frame |
| Colour | Body: black, door frame: chrome, decor panel: brushed stainless steel |
| Weight | 20 kg |
| Quality features | As for CR-50 Chrome |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-65 Chrome | CR-0065ST |
| Standard installation frame for CR-65 Chrome | EST-0065ST |
| Flush-mount installation frame for CR-65 Chrome | EFM-0065ST |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |



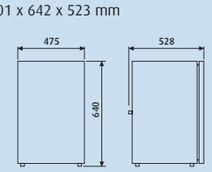
Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic CR-80 Chrome 4.24

NEW

**CR-80 Chrome**
**Built-in dimensions** (W x H x D)
475 x 640 x 475 mm (without door)
**With standard frame:**
479 x 642 x 475 mm
**With flush-mount frame:**
501 x 642 x 523 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 80 litres including 7.9-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 48 watts |
| Current consumption | 1.8 Ah/h at +25°C ambient temperature<br>2.1 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, mechanical, continuously variable thermostat |
| Material | Stainless steel fittings and decor panel, plastic interior, door frame chrome plated, body with coated metal |
| Colour | Body: black, door frame: chrome, decor panel: brushed stainless steel |
| Weight | 23 kg |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks right/left, door with double lock (top/bottom) and dual function (locking/ventilation), separately insulated *** freezer compartment, additional, foamed rear-wall evaporator in the interior, easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-80 Chrome | CR-0080ST |
| Standard installation frame for CR-80 Chrome | EST-0080ST |
| Flush-mount installation frame for CR-80 Chrome | EFM-0080ST |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

Tropical-rated (equivalent to ISO 7371)

Condensation drainage via hose connection or collection tank

Separately insulated *** freezer compartment

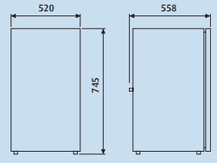
4 mounting points for fastening from inside

Standard or flush-mount installation frame available as accessory

230-volt connection with low-priced mains adapters (p. 98–101)

## WAECO CoolMatic CR-110 Chrome 4.24

**CR-110 Chrome**
**Built-in dimensions** (W x H x D)
520 x 745 x 505 mm (without door)
**With standard frame:**
524 x 747 x 505 mm
**With flush-mount frame:**
546 x 747 x 553 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 108 litres including 10.2-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 50 watts |
| Current consumption | 2.2 Ah/h at +25°C ambient temperature<br>2.5 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and – 18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | As for CR-80 Chrome |
| Material | Stainless steel fittings and decor panel, plastic interior, door frame chrome plated, body with coated metal frame |
| Colour | Body: black, door frame: chrome, decor panel: brushed stainless steel |
| Weight | 28 kg |
| Quality features | As for CR-80 Chrome |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

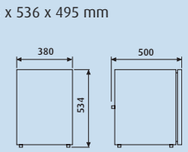
| Products | Ref. No. |
|---|---|
| CoolMatic CR-110 Chrome | CR-0110ST |
| Standard installation frame for CR-110 Chrome | EST-0110ST |
| Flush-mount installation frame for CR-110 Chrome | EFM-0110ST |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolMatic CR-50

4.24

**CR-50**
**Built-in dimensions** (W x H x D)
380 x 534 x 447 mm (without door)
**With standard frame:**
384 x 536 x 447 mm
**With flush-mount frame:**
406 x 536 x 495 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 48 litres including 5-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 40 watts |
| Current consumption | 1.4 Ah/h at +25°C ambient temperature<br>1.7 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, mechanical, continuously variable thermostat |
| Material | Stainless steel fittings, plastic interior, plastic door frame, body with coated metal frame |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | 19 kg |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks right/left, door with double lock (top/bottom) and dual function (locking/ventilation), separately insulated *** freezer compartment, additional, foamed rear-wall evaporator in the interior, easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-50 | CR-0050E |
| Standard installation frame for CR-50 | EST-0050E |
| Flush-mount installation frame for CR-50 | EFM-0050E |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

Tropical-rated (equivalent to ISO 7371)

Condensation drainage via hose connection or collection tank

Separately insulated *** freezer compartment

4 mounting points for fastening from inside

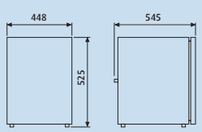
Standard or flush-mount installation frame available as accessory

230-volt connection with low-priced mains adapters (p. 98–101)

## WAECO CoolMatic CR-65

4.24

**CR-65**
**Built-in dimensions** (W x H x D)
448 x 525 x 492 mm (without door)
**With standard frame:**
452 x 527 x 492 mm
**With flush-mount frame:**
474 x 527 x 540 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 64 litres including 7.2-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 45 watts |
| Current consumption | 1.6 Ah/h at +25°C ambient temperature<br>1.9 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | As for CR-50 |
| Material | Stainless steel fittings, plastic interior, plastic door frame, body with coated metal frame |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | 20 kg |
| Quality features | As for CR-50 |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-65 | CR-0065E |
| Standard installation frame for CR-65 | EST-0065E |
| Flush-mount installation frame for CR-65 | EFM-0065E |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |



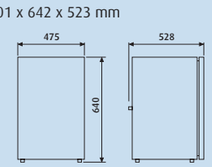
Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic CR-80

4.24

**CR-80**
**Built-in dimensions** (W x H x D)
475 x 640 x 475 mm (without door)
**With standard frame:**
479 x 642 x 475 mm
**With flush-mount frame:**
501 x 642 x 523 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 80 litres including 7.9-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 48 watts |
| Current consumption | 1.8 Ah/h at +25°C ambient temperature<br>2.1 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, dynamically ventilated wire tube condenser, mechanical, continuously variable thermostat |
| Material | Stainless steel fittings, plastic interior, plastic door frame, body with coated metal frame |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | 23 kg |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks right/left, door with double lock (top/bottom) and dual function (locking/ventilation), separately insulated *** freezer compartment, additional, foamed rear-wall evaporator in the interior, easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-80 | CR-0080E |
| Standard installation frame for CR-80 | EST-0080E |
| Flush-mount installation frame for CR-80 | EFM-0080E |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

Tropical-rated (equivalent to ISO 7371)

Condensation drainage via hose connection or collection tank

Separately insulated *** freezer compartment

4 mounting points for fastening from inside

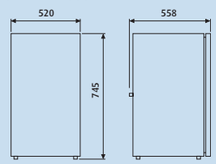
Standard or flush-mount installation frame available as accessory

230-volt connection with low-priced mains adapters (p. 98–101)

## WAECO CoolMatic CR-110

4.24

**CR-110**
**Built-in dimensions** (W x H x D)
520 x 745 x 505 mm (without door)
**With standard frame:**
524 x 747 x 505 mm
**With flush-mount frame:**
546 x 747 x 553 mm




| Premium built-in refrigerator for yachts, boats and motorhomes | |
|---|---|
| Gross capacity | approx. 108 litres including 10.2-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power consumption | approx. 50 watts |
| Current consumption | 2.2 Ah/h at +25°C ambient temperature<br>2.5 Ah/h at +32°C ambient temperature<br>both at +5°C interior temperature<br>and –18°C in the freezer compartment |
| Insulation | CFC-free polyurethane foam |
| System | As for CR-80 |
| Material | Stainless steel fittings, plastic interior, plastic door frame, body with coated metal frame |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | 28 kg |
| Quality features | As for CR-80 |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CR-110 | CR-0110E |
| Standard installation frame for CR-110 | EST-0110E |
| Flush-mount installation frame for CR-110 | EFM-0110E |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Contents, specifications and availability are subject to change serving the technical improvement.

New! CoolMatic CRP-40

# Small and smart at a good price

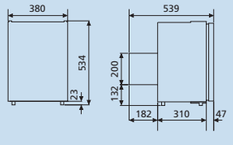
## Compact refrigerator in elegant stainless steel look

Its mat silver door panel catches the eye. Designed for smaller yachts and motorhomes, the new CoolMatic CRP-40 adds an elegant touch to the kitchen or galley. Inside, it's amazingly spacious: 39 litres cooling capacity, including a generously sized freezer compartment. Well-proven compressor technology makes for excellent cooling results, tailor-made installation frames for a flawless finish.

### WAECO CoolMatic CRP-40 4.24

NEW

**Built-in dimensions** (W x H x D)
380 x 534 x 447 mm (without door)
**With standard frame:**
384 x 536 x 447 mm
**With flush-mount frame:**
406 x 536 x 495 mm




| **Premium built-in refrigerator for yachts, boats and motorhomes** | |
|---|---|
| Gross capacity | 39 litres including 5.3-litre freezer compartmernt |
| Voltage | 12/24 volts DC |
| Average power input | 40 watts |
| Average running time | 23% at +20°C ambient temperature,<br>35% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Insulation | CFC-free polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/ automatic reverse pole protection, aluminium rollbond evaporator, mechanical, continuously variable thermostat, statically ventilated wire tube condenser |
| Material | Stainless steel fittings, plastic interior,<br>body of coated sheet steel |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | 18 kg |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks right/left, door with double lock (top/bottom) and dual function (locking/ventilation),<br>easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Products | Ref. No. |
|---|---|
| CoolMatic CRP-40 | 2225600001 |
| Standard installation frame | EST-0050E |
| Flush-mount installation frame | EFM-0050E |
| **Additional optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

Standard or flush-mount installation frame available as accessory

230-volt connection with low-priced mains adapters (p. 98–101)



Contents, specifications and availability are subject to change serving the technical improvement.



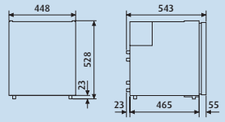
# Single or side-by-side partner

## Separate freezer CFR-50

**Too little space for frozen food in your onboard refrigerator?** Place the **CoolMatic CRF-50** freezer by its side! Thanks to its special construction the compact unit provides a generous **47-litre capacity for deep-freezing**. Its chic stainless steel looks make it a perfect match for the CoolMatic CR-65 refrigerator. A nice couple, but the CRF-50 also cuts a good figure when on its own.

### WAECO CoolMatic CRF-50 4.24

**Built-in dimensions** (W x H x D)
448 x 528 x 488 mm (without door)
**With standard frame:**
448 x 528 x 492 mm
**With flush-mount frame:**
474 x 528 x 540 mm




| *** **freezer with 47 litres capacity** | |
|---|---|
| Gross capacity | approx. 47 litres |
| Voltage | 12/24 volts DC |
| Average power input | approx. 45 watts |
| Average running time | 45% at +20°C ambient temperature,<br>65% at +32°C ambient temperature,<br>both at –18°C interior temperature |
| Power consumption | Power input x average running time |
| Insulation | 50 mm polyurethane, CFC-free |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/ automatic reverse pole protection, dynamically ventilated wire tube condenser, aluminium rollbond evaporator foamed from behind, manually adjustable deep-freeze thermostat |
| Material | Fittings in stainless steel, door frame in plastic,<br>body with coated metal frame |
| Colour | Body: black, door frame: silver, door panel: mat silver (brushed stainless steel appearance) |
| Weight | approx. 25 kg |
| Quality features | Condensation drain, interior light, door with magnetic seal, variable door hinges and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation), easy-to-change decor panel |
| Test marks | TÜV/GS, e-approved to 95/54/EC (EMC guidelines for vehicles) |

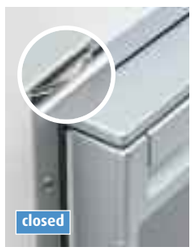
| Products | Ref. No. |
|---|---|
| CoolMatic CRF-50 | CRF-0050E |
| Standard installation frame | EST-0065E |
| Flush-mount installation frame | EFM-0065E |
| **Additional optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110–240 V › 24 V | MPS-35 |

Easy-clean plastic interior with condensation drainage

Deep-freezing up to –18°C

230-volt connection with low-priced mains adapters (p. 98–101)

Comfort feature: the recessed door grip




Refrigerator closed

Refrigerator in "vent" position

Standard or flush-mount frame – whichever you prefer

Contents, specifications and availability are subject to change serving the technical improvement.

# The “side-by-side” solution for perfectionists

## Fridge/freezer combination with WAECO CoolMatic RSD-115/RSF-115

The same outer dimensions, the same front in stainless steel, and even the same capacities (115 litres each): the **CoolMatic RSD-115** refrigerator and the **RSF-115** freezer are **an elegant duo**. Side by side, they form a **powerful fridge/freezer combo** with a total capacity of 230 litres, and they can also be used separately.

Contents, specifications and availability are subject to change serving the technical improvement.

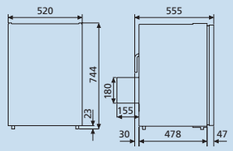


## WAECO CoolMatic RSD-115 / RSF-115

4.04

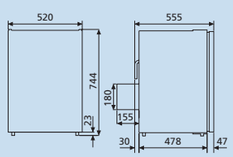
RSD-115

**RSD-115**
**Built-in dimensions** (W x H x D)
**with frame, without cooling unit**
**Standard:** 528 x 744 x 507 mm
**Flush-mount:** 543 x 740 x 550 mm



RSF-115

**RSF-115**
**Built-in dimensions** (W x H x D)
**with frame, without cooling unit**
**Standard:** 528 x 744 x 507 mm
**Flush-mount:** 543 x 740 x 550 mm




| Compressor refrigerator or freezer with stainless steel interior and stainless steel front | | |
|---|---|---|
| | **RSD-115** | **RSF-115 freezer** |
| Gross capacity | approx. 115 litres | approx. 115 litres |
| Voltage | 12/24 volts DC | 12/24 volts DC |
| Average power input | approx. 45 watts | approx. 50 watts |
| Average running time | 30% at +20°C,<br>45% at +32°C<br>ambient temperature<br>both at +5°C<br>interior temperature | 50% at +20°C,<br>70% at +32°C<br>ambient temperature<br>both at –18°C<br>interior temperature |
| Power consumption | Power input x average running time | |
| Temperature range | Refrigeration | ***-deep-freezing |
| Insulation | 50 mm polyurethane, CFC-free | |
| System | Detachable cooling unit (358 x 180 x 155 mm W x H x D) with 2 m supply cord, fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection for leisure or starter battery, electronic fuse/automatic reverse pole protection, dynamically ventilated fin condenser, aluminium rollbond evaporator, mechanical, continuously variable thermostat | |
| Material | Door frame in plastic, body with coated metal frame, door panel and interior in stainless steel | |
| Colour | Body and frame: black, door panel: silver (exchangeable) | |
| Weight | 28.5 kg | |
| Quality features | Interior light, door with magnetic seal, variable door mounts and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation); **RSF-115:** condensation drain in the stainless steel interior | |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) | |

| Products | Ref. No. |
|---|---|
| CoolMatic RSD-115 | RSD-0115E |
| CoolMatic RSF-115 | RSF-0115E |
| Standard installation frame | EST-0400 |
| Flush-mount installation frame | EFM-0400 |
| **Additional optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110–240 V › 24 V | MPS-35 |

A clear overview day and night: interior light as standard

Easy to clean and hygienic: the stainless steel interior

Spacious 8.5-litre *** freezer compartment with pivoting door on the RSD-110

Fold-up front grille to stop loose items from sliding

RSF-115: Deep-freezing up to –18°C
RSD-115: Normal refrigeration

Suitable for solar operation

Fridge and freezer – a cool “side-by-side“-solution

Standard or flush-mount installation frame available as accessory

Ideal in confined spaces: separate cooling unit, can be fitted up to two metres away from the refrigerator

Condensation drain in the stainless steel interior of the RSF-115

230-volt connection with low-priced mains adapters (p. 98–101)

Contents, specifications and availability are subject to change serving the technical improvement.

# Onboard fridge for highest demands

## Top technology, great insulation, cool convenience!

**A cooling appliance of superlatives, tailor-made for the top end of the marine market.** Outside, a reinforced insulation that resists all temperature fluctuations. Inside, well thought-out just like a domestic fridge. It's name? WAECO CoolMatic RPD-190.

### CoolMatic RPD-190

In the **CoolMatic RPD-190**, the refrigeration and deep-freeze compartments can be accessed separately, which prevents unnecessary cooling losses when you open the doors. The generously dimensioned **45-litre freezer compartment** cools down to **–18°C**. Both doors feature a patented double-lock mechanism.

Outstanding cooling performance, minimal power consumption and superbly silent running are provided by the **Danfoss BD50F** compressor. The refrigerator can be connected to either **12/24 volts DC** or **110 – 240 volts AC**. Supplied with the flush-mount installation frame, it blends elegantly with the onboard interior.

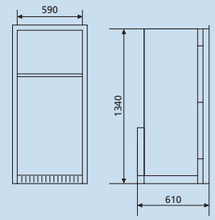


Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic RPD-190 4.04

**Built-in dimensions with frame**
(W x H x D)
**Flush-mount:** 590 x 1340 x 610 mm
Same built-in dimensions
as Norcold DE461




| Compressor refrigerator with separate freezer compartment | |
|---|---|
| Gross capacity | approx. 185 litres including 45-litre freezer compartment |
| Voltage | 12/24 volts DC and 110 – 240 volts AC |
| Average power input | approx. 65 watts |
| Average running time | 30% at +20°C ambient temperature,<br>45% at +32°C ambient temperature,<br>both at +5°C interior temperature |
| Power consumption | Power input x average running time |
| Temperature range | Refrigeration: +2°C to +12°C, deep-freezing: up to –18°C |
| Insulation | Refrigeration: 40 – 45 mm, deep-freezing: 75 – 80 mm<br>polyurethane, CFC-free |
| System | Fully hermetic Danfoss BD50F compressor with integrated control electronics, low-voltage protection adjustable for leisure or starter battery, electronic fuse/automatic reverse pole protection, dynamically ventilated air outlet, evaporator foamed from behind,<br>manually adjustable thermostat |
| Material | Stainless steel fittings, plastic interior,<br>metal cabinet |
| Colour | Black |
| Weight | approx. 45 kg |
| Quality features | Condensation drain, interior light, doors with magnetic seal, variable door hinges and locks (right/left), exchangeable door panel, patented door lock (top/bottom) for both doors and additional dual function (locking/ventilation), flush-mount installation frame, wide choice of extras (vegetable bins, trays, etc.) |
| Test mark | e-approved according to 95/54/EC<br>(EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| CoolMatic RPD-190 | RPD-1190E |

Normal refrigeration and *** deep-freezing

Suitable for solar operation

12/24 volts DC and 110 – 240 volts AC

Premium appliance for larger yachts: ultimate power and user comfort!

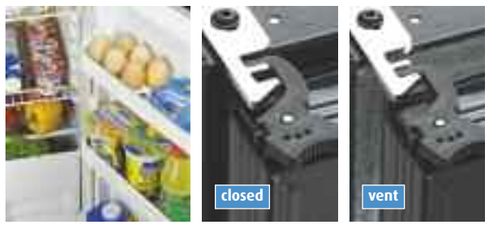
Flush-mount installation frame available as standard

Danfoss BDF technology for homelike cooling comfort

Sturdy sheet steel instead of the usual cardboard

The extra-strong insulation leaves temperature fluctuations outside

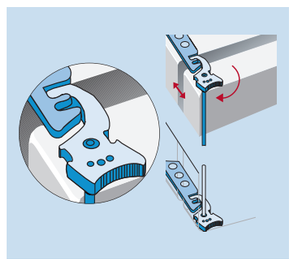
A view inside: perfect design with many details for extra convenience




The patented door lock when closed and in "vent" position

Quick and easy cleaning thanks to the "Easy-clean" feature

Interior light as standard for a clear view in the dark



The patented double-lock system gives a firm seal at top and bottom

Condenser ventilation with fan

Contents, specifications and availability are subject to change serving the technical improvement.

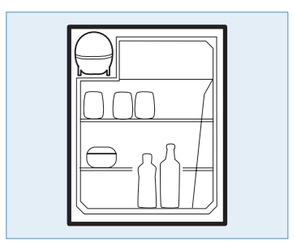
# Compressor refrigerators in absorption dimensions

## Tailor-made for your motorhome and caravan

**You can take our word for it: CoolMatic MDC compressor refrigerators fit into your motorhome or caravan as if they had been made to measure. This is because they have the same outer dimensions as commonly used absorption refrigerators but offer a considerably larger useful capacity.**

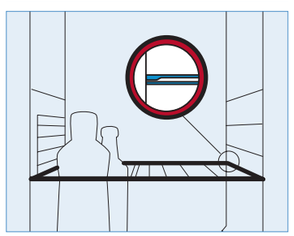
So they can easily replace them, and there are many good reasons for the conversion. CoolMatic MDC refrigerators provide excellent cooling performance at extreme ambient temperatures and in inclined positions. They work quietly and economically. Due to their outstanding energy efficiency, CoolMatic MDC refrigerators are ideally suited for operation with a solar unit.

## Optimum utilisation of space



### Interior

Space is in short supply onboard a motorhome or caravan. Therefore, it's important to make the most of what's available. The interior design of the **CoolMatic MDC refrigerators** is a good example of how this can be done. Its **optimum utilisation of space** in height, width and depth, the **spacious freezer compartments**, the vertical space for **1.5-litre bottles** as well as the absence of unnecessary decorative elements illustrate the **well thought-out design**.



### Details

All **interior shelves are adjustable in height** and have a **retaining bar** at the front edge. A **special fixing device** makes sure that they stay firmly in place in all situations. **Fold-up sections in the shelves** provide additional room for large bottles or bulky items.



Contents, specifications and availability are subject to change serving the technical improvement.

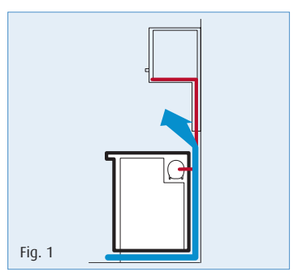
Refrigerator when closed and in "vent" position

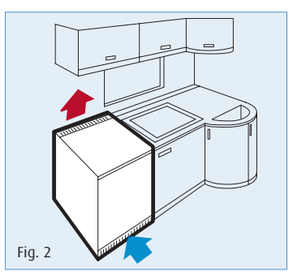
Spacious, separate freezer compartments for frozen food

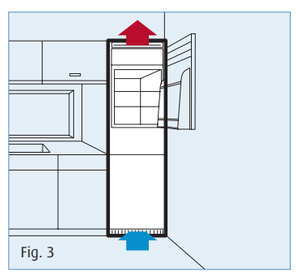
Convenience day and night: interior light as standard

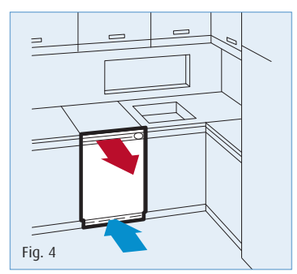
Left or right opening – either is possible with the variable door mounts

## Ventilation




**A big advantage with the CoolMatic MDC series: there is no need to install a gas supply**, and no need to drill holes in the body of your motorhome or caravan! An air intake/outlet is unnecessary either, provided you ensure adequate ventilation elsewhere.

When installing your MDC refrigerator, you should always leave a small gap between it and the wall (**Fig. 1**). In the example given in **Fig. 2**, air intake is ensured by the gap between the fridge bottom and the floor. Air outlet is via the shutter at the top rear of the refrigerator. Of course, you can also install your refrigerator at eye level. In that case, there should be enough space for air intake between the floor and the wall. Air outlet is via the shutter at the refrigerator front (**Fig. 3**).

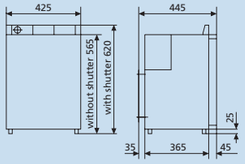
Another example of how to provide optimum ventilation is shown in **Fig. 4**: air intake and outlet is through two shutters, at the top and bottom of the refrigerator front.

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO CoolMatic MDC-50

4.11

MDC-50




| Compressor refrigerator in absorption dimensions | |
|---|---|
| Gross capacity | approx. 43 litres including approx. 4-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power input | approx. 45 watts |
| Power consumption | 25% at +20°C ambient temperature, 40% at +32°C ambient temperature, both at +5°C interior temperature |
| Insulation | 35 mm solid polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, statically ventilated wire tube condenser, aluminium rollbond evaporator, mechanical, continuously variable thermostat |
| Material | Body in plastic, middle section in coated sheet steel, inside door lining and interior: polystyrene |
| Colour | Door frame/body: grey, door panel: pale grey |
| Weight | 15 kg |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation) |
| Scope of delivery | Height-adjustable, coated folding grille with locking points and fixtures |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolMatic MDC-50 | MDC-050 |
| **Optional extras:** ventilation panel | 8000G-003 |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

Refrigeration **+10°C to +2°C** and *** deep-freezing **0°C to –18°C**

**Suitable for solar operation**

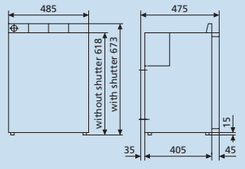
**Ventilation panel available as accessory**

**Large freezer compartment in the MDC-65**

## WAECO CoolMatic MDC-65

4.11

MDC-65




| Compressor refrigerator in absorption dimensions | |
|---|---|
| Gross capacity | approx. 64 litres including approx. 10-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power input | approx. 45 watts |
| Power consumption | 30% at +20°C ambient temperature, 45% at +32°C ambient temperature, both at +5°C interior temperature |
| Insulation | 35 mm solid polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, statically ventilated wire tube condenser, aluminium rollbond evaporator, mechanical, continuously variable thermostat |
| Material | Body in plastic, middle section in coated sheet steel, inside door lining and interior: polystyrene |
| Colour | Door frame/body: grey, door panel: pale grey |
| Weight | 20 kg |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation) |
| Scope of delivery | Height-adjustable, coated folding grille with locking points and fixtures |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolMatic MDC-65 | MDC-065 |
| **Optional extras:** ventilation panel | 8000G-002 |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

**230-volt connection with low-priced mains adapters (p. 98 – 101)**



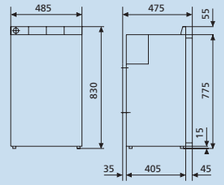
Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO CoolMatic MDC-90

4.11

MDC-90




| Compressor refrigerator in absorption dimensions | |
|---|---|
| Gross capacity | approx. 90 litres including approx. 10-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power input | approx. 45 watts |
| Power consumption | 35% at +20°C ambient temperature, 50% at +32°C ambient temperature, both at +5°C interior temperature |
| Insulation | 35 mm solid polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, statically ventilated wire tube condenser, aluminium rollbond evaporator, mechanical, continuously variable thermostat |
| Material | Body in plastic, middle section in coated sheet steel, inside door lining and interior: polystyrene |
| Colour | Door frame/body: grey, door panel: pale grey |
| Weight | 28 kg |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation) |
| Scope of delivery | Two height-adjustable, coated folding grilles with locking points and fixtures, ventilation panel |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolMatic MDC-90 | MDC-090 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

Refrigeration **+10°C to +2°C** and *** deep-freezing **0°C to –18°C**

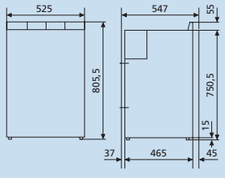
**Suitable for solar operation**

**Ventilation panel available as standard**

## WAECO CoolMatic MDC-110

4.11

MDC-110




| Compressor refrigerator in absorption dimensions | |
|---|---|
| Gross capacity | approx. 110 litres including approx. 13-litre freezer compartment |
| Voltage | 12/24 volts DC |
| Average power input | approx. 45 watts |
| Power consumption | 40% at +20°C ambient temperature, 55% at +32°C ambient temperature, both at +5°C interior temperature |
| Insulation | 35 mm solid polyurethane foam |
| System | Fully hermetic Danfoss BD35F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, statically ventilated wire tube condenser, aluminium rollbond evaporator, mechanical, continuously variable thermostat |
| Material | Body in plastic, middle section in coated sheet steel, inside door lining and interior: polystyrene |
| Colour | Door frame/body: grey, door panel: pale grey |
| Weight | 30.5 kg |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), door with double lock (top/bottom) and dual function (locking/ventilation) |
| Scope of delivery | Two height-adjustable, coated folding grilles with locking points and fixtures, ventilation panel |
| Test marks | TÜV/GS, e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolMatic MDC-110 | MDC-110 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

**Large freezer compartment**

**230-volt connection with low-priced mains adapters (p. 98 – 101)**

Contents, specifications and availability are subject to change serving the technical improvement.

# Jumbo-size cooling

## Compressor refrigerators for commercial shipping, large yachts, motorhomes

**With capacities ranging from 160 to 220 litres, they are as big as household refrigerators.** Featuring a well organised interior with separate freezer compartments and pull-out multiboxes, they offer the same comforts as their domestic counterparts. The difference is: the snow-white CoolMatic HDC refrigerators have been designed from start to finish for mobile use and offer a fantastic price/performance ratio.

CoolMatic HDC-160 CoolMatic HDC-190 CoolMatic HDC-220

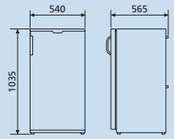


Contents, specifications and availability are subject to change serving the technical improvement.

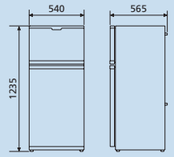


## WAECO CoolMatic HDC-160 / HDC-190 / HDC-220 4.06

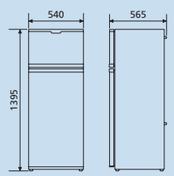
HDC-160



HDC-190



HDC-220




| **Jumbo-size compressor refrigerator** | |
|---|---|
| | **HDC-160** |
| Gross capacity | approx. 156 litres including 16-litre *** freezer compartment |
| Voltage | 12/24 volts DC |
| Average power input | approx. 60 watts |
| Average running time | 25% at +20°C ambient temperature and +5°C interior temperature |
| Power consumption | Power input x average running time |
| Insulation | Solid polyurethane foam |
| System | Fully hermetic Danfoss BD50F compressor with integrated control electronics, low-voltage protection, electronic fuse/automatic reverse pole protection, mechanical, continuously variable thermostat |
| Material | Body and doors in sheet steel, interior of impact-resistant polystyrene |
| Colour | Cabinet, inside door lining and interior: white |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left) |
| Weight | 36 kg |
| Scope of delivery | Two pull-out multiboxes, two height-adjustable, plastic-coated grilles |
| Test marks | e-approved according to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| CoolMatic HDC-160 | HDC-160 |
| **Optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-50 |

| **Jumbo-size compressor refrigerator** | |
|---|---|
| | **HDC-190** |
| Gross capacity | approx. 185 litres including 45-litre *** freezer compartment |
| Average running time | 35% at +20°C ambient temperature and +5°C interior temperature |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), two separate doors |
| Weight | 39 kg |
| Scope of delivery | Two pull-out multiboxes, two height-adjustable, plastic-coated grilles |
| Other specifications as for CoolMatic HDC-160 | |
| **Product** | **Ref. No.** |
| CoolMatic HDC-190 | HDC-190 |
| **Optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-50 |

| **Jumbo-size compressor refrigerator** | |
|---|---|
| | **HDC-220** |
| Gross capacity | approx. 214 litres including 46-litre *** freezer compartment |
| Average running time | 40% at +20°C ambient temperature and +5°C interior temperature |
| Quality features | Interior light, door with magnetic seal, variable door hinges and locks (right/left), two separate doors |
| Weight | 44 kg |
| Scope of delivery | Two pull-out multiboxes, three height-adjustable, plastic-coated grilles |
| Other specifications as for CoolMatic HDC-160 | |
| **Product** | **Ref. No.** |
| CoolMatic HDC-220 | HDC-220 |
| **Optional extra** | |
| Mains adapter 110–240 V › 24 V | MPS-50 |

**Deep-freezing up to –18 °C**

**Suitable for solar operation**

**Large freezer compartment**

*** freezer compartment

Transport lock

Interior light

**Large freezer compartment with separate door (HDC-190/-220)**

**230-volt connection with low-priced mains adapters (p. 98–101)**

Contents, specifications and availability are subject to change serving the technical improvement.

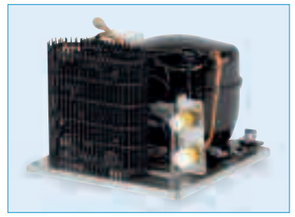
# Cooling units

## For entry-level and professional use

### Tailor-made cooling solutions for all applications

**On-board refrigeration problems vary. In fact, they are as individual as yachts, boats and their owners.** To provide an optimum solution for every application, our ColdMachine programme includes a total of three cooling unit series. WAECO ColdMachine cooling units work with power-regulated **Danfoss BDF compressors**. They are powerful, economical, silent in operation, ready for connection to 12/24 volts DC and provide impeccable operation in inclined positions. Each series comes with complementary evaporators specifically designed to match the performance of the compressor fitted.

### **Series 50** – Entry-level units at a super price!

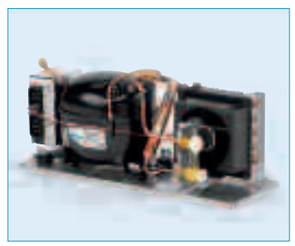


Designed for small refrigerator capacities **(up to approx. 130 litres)** and for use in **cool waters**.

› Equipped with the power-regulated Danfoss BD35F compressor
› Two air-cooled units of different body shapes
› Three evaporator types and one cold accumulator, each designed to exactly match the compressor performance
› Corrosion-resistant stainless steel mounting plate
› Impeccable operation in inclined positions

**Pages 88 – 89**

### **Series 80** – Professional units for individual cooling comfort!



Designed for small and medium refrigerator capacities **(up to approx. 250 litres)** and for use in **warmer waters**.

› Equipped with the power-regulated Danfoss BD35F compressor
› Three air-cooled units of different body shapes and one water cooled unit
› Seven evaporator types and one cold accumulator with automatic programme controller, each designed to exactly match the compressor performance
› Corrosion-resistant stainless steel mounting plate
› Impeccable operation in inclined positions

**Pages 90 – 93**

### **Series 90** – Professional units for highest demands!

**AEO electronics**

Designed for extra-large refrigerator capacities **(up to approx. 400 litres)**, for deep-freeze cooling (up to approx. 200 litres) and for use in **tropical waters**.

› Equipped with the power-regulated Danfoss BD50F compressor (25% more cooling power)
› Three air-cooled units of different body shapes and one water cooled unit
› Three evaporator types and one cold accumulator with automatic programme controller, each designed to exactly match the compressor performance
› Corrosion-resistant stainless steel mounting plate and Danfoss AEO electronics
› Impeccable operation in inclined positions

**Pages 94 – 97**



Contents, specifications and availability are subject to change serving the technical improvement.



## Compressors: With adaptive speed control!

**Every refrigeration system comprises an evaporator, a condenser and a compressor.** WAECO offers a whole variety of condensers and evaporators. To ensure efficient operation the three major components of a refrigeration system must be perfectly balanced. WAECO exclusively uses the **adaptive speed Danfoss compressors BD35F and BD50F**. They contribute significantly to the supreme efficiency of WAECO refrigeration systems – along with the following factors:

› **The compressor speed adapts precisely to the performance requirements of the other system components (evaporator and condenser).**
› **Both compressor types can be supplied with plate and fin evaporators in a range of shapes and sizes. This ensures that every shape of container can be equipped correctly. It also makes optimum use of the compressor performance.**
› **The dynamically ventilated or water-cooled condenser units always guarantee the necessary heat diffusion.**

## Condenser: with air or water cooling?

**Air cooling offers many advantages**. Except for the water cooled CU-87 and CU-97 units, all ColdMachine cooling units are air-cooled. They release the heat to the atmosphere through a dynamically ventilated condenser. For ventilation, WAECO uses only brushless, wear-free fans.

**Water-cooled units** normally require additional equipment and fitting, which, if not properly maintained, can be an additional source of technical risk. Even so, we do recommend water cooling in a few special cases, e.g. where the cooling unit has to be installed in an overheated engine room, or where the yacht will mostly be sailing in tropical waters.

**Otherwise, air-cooling is the more elegant and an equally efficient solution because the air temperature at the ship's hull below the water line is barely higher than the water temperature.**

## Evaporators: plate or fin type?

The larger the surface of an evaporator, the more heat it can absorb, and the greater its refrigerating capacity.

With the same overall dimensions, **fin-type evaporators** have up to five times more surface area than plate evaporators and hence a higher performance. If the fin evaporator is equipped with small fans, this increases the air exchange and also the performance. Such ventilated evaporators ensure optimum cooling with low power consumption even in tropical waters. They are also ideal for deep-freeze refrigeration.

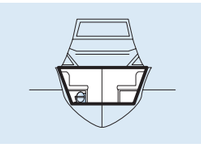
Anyone requiring only a small refrigerating capacity is equally well served with the less expensive **plate-type evaporators**. These offer the additional advantage that ice cubes can be easily produced on the plate surface.

## Installation tips: where is the air coolest on a ship?

**What really counts is the optimum combination of compressor, evaporator and condenser as well as the appropriate installation location.**

WAECO offers a wide range of designs for all components, so that even the most awkwardly shaped space can be used. The best location is below the water line, because here, the air is already cooled by the water temperature. During installation, it is necessary to ensure that the unit has adequate air circulation. This can be achieved by simple slots or holes, or by means of the air exhaust hood, which is available as accessory for series 80 and 90.

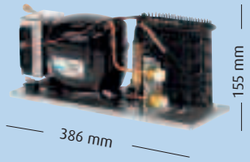
The connection between the evaporator and the compressor/condenser unit is especially easy on WAECO products: the refrigerant hoses have self-sealing valve couplings with a very small diameter.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO ColdMachine 54

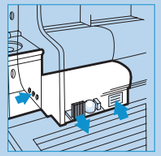
4.07




Depth: 130 mm

| Entry-level unit for small refrigeration capacities and for use in cool waters | |
|---|---|
| Cooling capacities | 130 litres max. normal refrigeration with direct evaporators, 100 litres max. with cold accumulators |
| Voltage | 12/24 volts DC |
| Power input | approx. 35 or 40 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, dynamically ventilated wire tube condenser, self-sealing valve couplings |
| Weight | approx. 6.0 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

| Product | Ref. No. |
|---|---|
| ColdMachine 54 | CU-54 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |



Suitable for solar operation

Air-cooled units in various body shapes

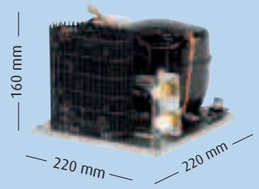
Three evaporator types and one cold accumulator to choose from

Dynamically ventilated wire tube condenser

With corrosion-resistant stainless steel mounting plate

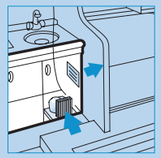
## WAECO ColdMachine 55

4.07



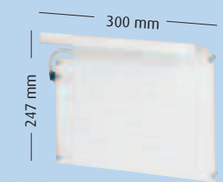

| Entry-level unit for small refrigeration capacities and for use in cool waters | |
|---|---|
| Cooling capacities | 130 litres max. normal refrigeration with direct evaporators, 100 litres max. with cold accumulators |
| Voltage | 12/24 volts DC |
| Power input | approx. 35 or 40 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, dynamically ventilated wire tube condenser, self-sealing valve couplings |
| Weight | approx. 6.5 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

| Product | Ref. No. |
|---|---|
| ColdMachine 55 | CU-55 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |



## L-evaporator VD-01 for Series 50

4.07

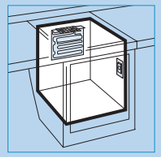



Depth: 110 mm

Thermostat

| L-evaporator for installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 80 litres max. with insulation 35 mm PU, 100 litres max. with insulation 50 mm PU |
| Power input | approx. 35 watts |
| Average running time | 50% with 35 mm PU insulation 40% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | Standard, L-shape evaporator for horizontal and vertical installation, self-sealing valve couplings, flexible connection pipe approx. 2 m, continuously variable thermostat (for external installation, with blue turning knob and LED indicator, white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.5 kg |

| Product | Ref. No. | |
|---|---|---|
| L-evaporator VD-01 for Series 50 | VD-01 | (incl. thermostat) |



Thermostat with LED indicator

230-volt connection with low-priced mains adapters (p. 98 – 101)

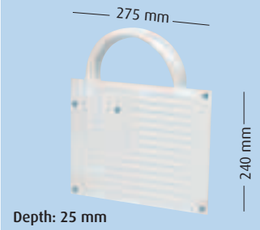


Contents, specifications and availability are subject to change serving the technical improvement.



## Plate evaporator VD-02 for Series 50

4.07

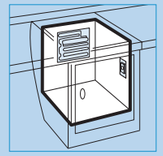



Depth: 25 mm

Thermostat

| Plate evaporator for installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 30 litres max. with insulation 35 mm PU, 50 litres max. with insulation 50 mm PU |
| Power input | approx. 35 watts |
| Average running time | 45% with 35 mm PU insulation, 35% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | Standard, plate evaporator for horizontal and vertical installation, self-sealing valve couplings, flexible connection pipe approx. 2 m, continuously variable thermostat (for external installation, with blue turning knob and LED indicator, white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.0 kg |

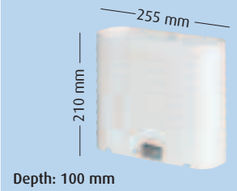
| Product | Ref. No. | |
|---|---|---|
| Plate evaporator VD-02 for Series 50 | VD-02 | (incl. thermostat) |



Thermostat with LED indicator

## O-evaporator VD-07 for Series 50

4.07

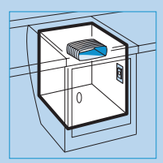



Depth: 100 mm

Thermostat

| O-evaporator for installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 100 litres max. with insulation 35 mm PU, 130 litres max. with insulation 50 mm PU |
| Power input | approx. 35 watts |
| Average running time | 50% with 35 mm PU insulation, 40% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | Standard O-evaporator for horizontal or vertical installation, self-sealing valve couplings, flexible connection pipe approx. 2 m, continuously variable thermostat (for external installation, with blue turning knob and LED indicator, white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.5 kg |

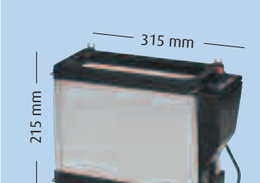
| Product | Ref. No. | |
|---|---|---|
| O-evaporator VD-07 for Series 50 | VD-07 | (incl. thermostat) |



Thermostat with LED indicator

## Cold accumulator VD-17 for Series 50

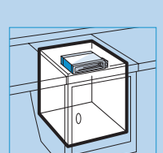
4.07




Depth: 125 mm

| Cold accumulator for installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 80 litres with insulation 35 mm PU, 100 litres with insulation 50 mm PU |
| Power input | approx. 40 watts |
| Prozentuale Laufzeit | 45% with 35 mm PU insulation, 35% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | Closed aluminium rollbond evaporator as cold accumulator, with drip tray and installation material for vertical and horizontal installation, self-sealing valve couplings, flexible connection pipe approx. 2 m, continuously variable thermostat (integrated in the evaporator housing) |
| Weight | approx. 3.5 kg |

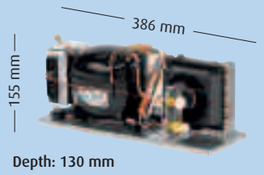
| Product | Ref. No. | |
|---|---|---|
| Cold accumulator VD-17 for Series 50 | VD-17 | (incl. thermostat) |





Contents, specifications and availability are subject to change serving the technical improvement.

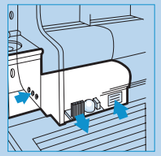
## WAECO ColdMachine 84 — 4.07




Depth: 130 mm

| Professional unit for small and medium refrigeration capacities and for use in warmer waters | |
|---|---|
| Cooling capacities | 250 litres max. normal refrigeration with direct evaporators, 70 litres max. deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 45 to 60 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.0 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

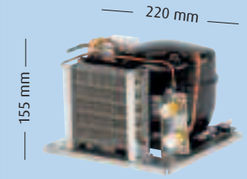
| Product | Ref. No. |
|---|---|
| ColdMachine 84 | CU-84 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |



Suitable for solar operation

Tailor-made solutions for all onboard situations!

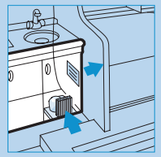
## WAECO ColdMachine 85 — 4.07




Depth: 220 mm

| Professional unit for small and medium refrigeration capacities and for use in warmer waters | |
|---|---|
| Cooling capacities | 250 litres max. normal refrigeration with direct evaporators, 70 litres max. deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 45 to 60 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.0 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

| Product | Ref. No. |
|---|---|
| ColdMachine 85 | CU-85 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

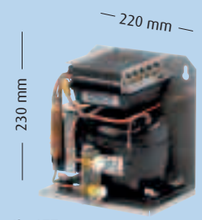


Air-cooled units in different body shapes

For refrigerator capacities up to approx. 250 l and freezer capacities up to approx. 70 l

With corrosion-resistant stainless steel mounting plate

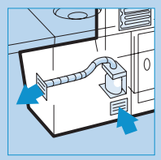
## WAECO ColdMachine 86 — 4.07




Depth: 177 mm

| Professional unit for small and medium refrigeration capacities and for use in warmer waters | |
|---|---|
| Cooling capacities | 250 litres max. normal refrigeration with direct evaporators, 70 litres max. deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 45 to 60 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.5 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

| Product | Ref. No. |
|---|---|
| ColdMachine 86 | CU-86 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

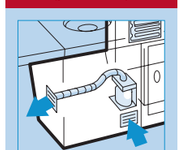


Choose from seven evaporator types and one cold accumulator

230-volt connection with low-priced mains adapters (p. 98 – 101)

## Accessory for CU-84, CU-85 and CU-86 — 4.07

| Air exhaust hood with counterpart and 2 m hose | |
|---|---|
| **Product** | **Ref. No.** |
| Air exhaust hood with counterpart | W480.3 |

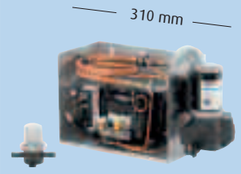




Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO ColdMachine 87 — 4.07



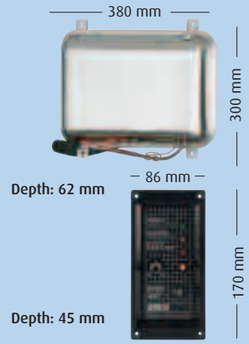

Depth: 250 mm

| Water-cooled unit for small and medium refrigeration capacities and for use in warmer waters | |
|---|---|
| Cooling capacities | 250 litres max. normal refrigeration with direct evaporators, 70 litres max. deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 45 to 60 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, self-sucking seawater pump, seawater-cooled condenser, self-sealing valve couplings |
| Weight | approx. 7.5 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate |

| Product | Ref. No. |
|---|---|
| ColdMachine 87 | CU-87 |
| **Optional extras** | |
| Mains adapter 230 V › 24 V | EPS-100W |
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

Water-cooled unit

## Cold accumulator VD-06 for Series 80 — 4.07



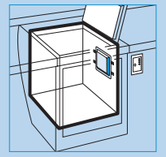

Depth: 62 mm

Depth: 45 mm

TEC electronic controller

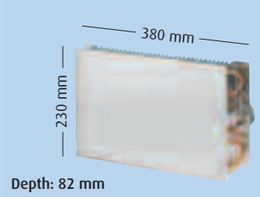
| Cold accumulator for vertical installation in chest and upright refrigerators | | |
|---|---|---|
| Cooling capacities | 120 litres max. with insulation 35 mm PU, 200 litres max. with insulation 50 mm PU | |
| Power input | approx. 65 watts | |
| Battery load | At one charge/discharge cycle per day = 10 watts/hour | |
| Charging time | approx. 1.5 hours | |
| Discharging time | 8 to 18 hours (without compressor operation) | |
| System | Stainless steel cold accumulator with integrated high-performance fin evaporator, self-sealing valve couplings, continuously variable with TEC controller | |
| Pipe length | 2.5 m | |
| Weight | approx. 5.0 kg | |

| Product | Ref. No. | |
|---|---|---|
| Cold accumulator VD-06 for Series 80 | VD-06 | (incl. TEC controller) |

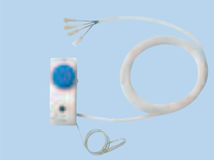


Cold accumulator with TEC electronic controller

## Fin evaporator VD-03 for Series 80 — 4.07



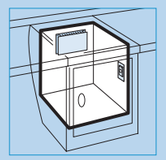

Depth: 82 mm



Thermostat

| Fin evaporator for installation in chest and upright refrigerators, especially suitable for large refrigeration capacities and high ambient temperatures | |
|---|---|
| Cooling capacities | 170 litres max. with insulation 35 mm PU, 200 litres max. with insulation 50 mm PU |
| Power input | approx. 50 watts |
| Average running time | 45% with 35 mm PU insulation, 35% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | Copper-aluminium fin evaporator with large surface through cooling fins, for vertical and horizontal installation, self-sealing valve couplings, flexible connection pipe approx. 2.5 m, continuously variable thermostat (for external installation, with blue turning knob and LED indicator, white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 2.0 kg |

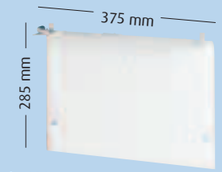
| Product | Ref. No. | |
|---|---|---|
| Fin evaporator VD-03 for Series 80 | VD-03 | (incl. thermostat) |



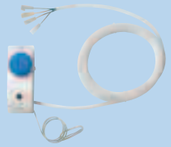
Thermostat with LED indicator

Contents, specifications and availability are subject to change serving the technical improvement.

## L-evaporator VD-04 for Series 80 — 4.07



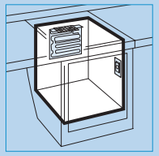

Depth: 120 mm



Thermostat

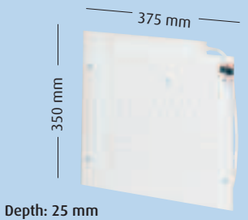
| L-evaporator for horizontal and vertical installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 130 litres max. with insulation 35 mm PU,<br>170 litres max. with insulation 50 mm PU |
| Power input | approx. 45 watts |
| Average running time | 50% with 35 mm PU insulation,<br>40% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | Standard, L-shape evaporator, self-sealing valve couplings,<br>flexible connection pipe approx. 2 m, continuously variable thermostat<br>(for external installation, with blue turning knob and LED indicator,<br>white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.5 kg |

| Product | Ref. No. | |
|---|---|---|
| L-evaporator VD-04 for Series 80 | VD-04 | (incl. thermostat) |



Thermostat with LED indicator

## Plate evaporator VD-05 for Series 80 — 4.07

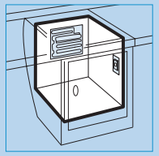



Depth: 25 mm

Thermostat

| Plate evaporator for horizontal and vertical installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 130 litres max. with insulation 35 mm PU,<br>170 litres max. with insulation 50 mm PU |
| Power input | approx. 45 watts |
| Average running time | 50% with 35 mm PU insulation,<br>40% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | Standard plate evaporator, self-sealing valve couplings,<br>flexible connection pipe approx. 2 m, continuously variable thermostat<br>(for external installation, with blue turning knob and LED indicator,<br>white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.5 kg |

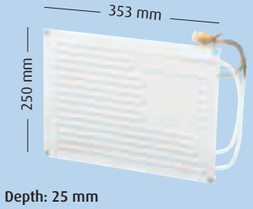
| Product | Ref. No. | |
|---|---|---|
| Plate evaporator VD-05 for Series 80 | VD-05 | (incl. thermostat) |



The choice of the evaporator type depends on the onboard situation and the individual performance requirements

Thermostat with LED indicator

## Plate evaporator VD-18 for Series 80 — 4.07

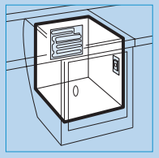



Depth: 25 mm

Thermostat

| Plate evaporator for horizontal and vertical installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 100 litres max. with insulation 35 mm PU,<br>150 litres max. with insulation 50 mm PU |
| Power input | approx. 45 watts |
| Prozentuale Laufzeit | 50% with 35 mm PU insulation,<br>40% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | Standard plate evaporator, self-sealing valve couplings,<br>flexible connection pipe approx. 2 m, continuously variable thermostat<br>(for external installation, with blue turning knob and LED indicator,<br>white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 1.5 kg |

| Product | Ref. No. | |
|---|---|---|
| Plate evaporator VD-18 for Series 80 | VD-18 | (incl. thermostat) |



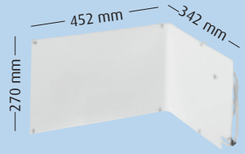
Thermostat with LED indicator



Contents, specifications and availability are subject to change serving the technical improvement.



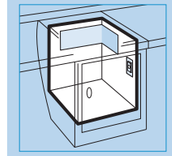
## Angle evaporator VD-08 for Series 80 — 4.07



Thermostat

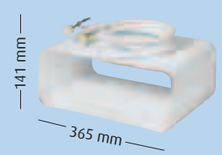
| Angle evaporator for installation in chest coolers, especially suitable for medium refrigeration capacities, also for deep-freezing up to 70 litres | |
|---|---|
| Cooling capacities | 160 litres max. with insulation 35 mm PU,<br>180 litres max. with insulation 50 mm PU |
| Power input | approx. 60 watts |
| Average running time | 50% with 35 mm PU insulation,<br>40% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | Standard angle evaporator, self-sealing valve couplings,<br>flexible connection pipe approx. 2 m, continuously variable thermostat<br>(for external installation, with blue turning knob and LED indicator,<br>white plastic housing), electric supply cord approx. 3 m |
| Weight | approx. 2.0 kg |

| Product | Ref. No. | |
|---|---|---|
| Angle evaporator VD-08 for Series 80 | VD-08 | (incl. thermostat) |



Thermostat with LED indicator

## O-evaporator VD-09 for Series 80 — 4.07

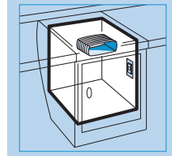



Depth: 270 mm

Thermostat

| O-evaporator for installation in chest coolers, especially suitable for medium refrigeration capacities, evaporator can be used as deep-freeze compartment | |
|---|---|
| Cooling capacities | 160 litres max. with insulation 35 mm PU,<br>180 litres max. with insulation 50 mm PU |
| Power input | approx. 60 watts |
| Average running time | 45% with 35 mm PU insulation,<br>35% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | O-evaporator for vertical and horizontal installation,<br>self-sealing valve couplings, flexible connection pipe approx. 2 m,<br>continuously variable thermostat (for external installation,<br>with blue turning knob and LED indicator, white plastic housing),<br>electric supply cord approx. 3 m |
| Weight | approx. 2.0 kg |

| Product | Ref. No. | |
|---|---|---|
| O-evaporator VD-09 for Series 80 | VD-09 | (incl. thermostat) |



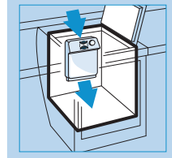
Thermostat with LED indicator

## Air circulating evaporator VD-15 for Series 80 — 4.07

Depth: 65 mm

| Air circulating evaporator for installation in chest and upright refrigerators, especially suitable for large refrigeration capacities and high ambient temperatures | |
|---|---|
| Cooling capacities | 200 litres max. with insulation 35 mm PU,<br>250 litres max. with insulation 50 mm PU |
| Power input | approx. 60 watts |
| Average running time | 40% with 35 mm PU insulation,<br>30% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | High-performance air circulating evaporator in a white plastic housing,<br>with brushless fan, fast cooling through air circulating operation,<br>self-sealing valve couplings, flexible connection pipe approx. 2.5 m,<br>continuously variable thermostat integrated in the evaporator housing |
| Weight | approx. 2.0 kg |

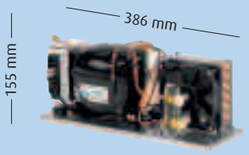
| Product | Ref. No. | |
|---|---|---|
| Air circulating evaporator VD-15 for Series 80 | VD-15 | (incl. thermostat) |



Air circulating evaporator for optimal cooling performance at minimal power consumption

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO ColdMachine 94 4.07

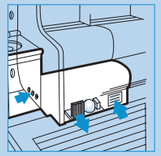


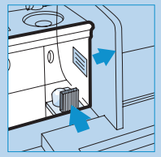

Depth: 130 mm

**Energy-saving AEO electronics**

| Professional unit for extra-large refrigeration capacities and for use in tropical waters | |
|---|---|
| Cooling capacities | 400 litres max. normal refrigeration with direct evaporators, 250 litres max. with cold accumulators, 200 litres max. for deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 60 to 100 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD50F compressor with AEO electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.0 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate, Danfoss AEO electronics |

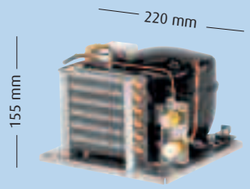
| Product | Ref. No. |
|---|---|
| ColdMachine 94 | CU-94 |
| **Optional extra** Mains adapter 110 – 240 V › 24 V | MPS-50 |





Suitable for solar operation

## WAECO ColdMachine 95 4.07




Depth: 220 mm

**Energy-saving AEO electronics**

| Professional unit for extra-large refrigeration capacities and for use in tropical waters | |
|---|---|
| Cooling capacities | 400 litres max. normal refrigeration with direct evaporators, 250 litres max. with cold accumulators, 200 litres max. deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | 60 to 100 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD50F compressor with AEO electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.0 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate, Danfoss AEO electronics |

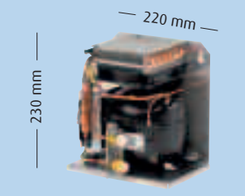
| Product | Ref. No. |
|---|---|
| ColdMachine 95 | CU-95 |
| **Optional extra** Mains adapter 110 – 240 V › 24 V | MPS-50 |

Air-cooled units in various body shapes

Choose from three evaporator types and one cold accumulator

With corrosion-resistant stainless steel mounting plate and AEO electronics

## WAECO ColdMachine 96 4.07

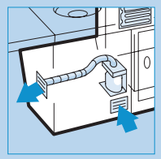



Depth: 177 mm

**Energy-saving AEO electronics**

| Professional unit for extra-large refrigeration capacities and for use in tropical waters | |
|---|---|
| Cooling capacities | 400 litres max. normal refrigeration with direct evaporators, 250 litres max. with cold accumulators, 200 litres max. for deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 60 to 100 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD50F compressor with AEO electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, self-sealing valve couplings |
| Weight | approx. 6.5 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate, Danfoss AEO electronics |

| Product | Ref. No. |
|---|---|
| ColdMachine 96 | CU-96 |
| **Optional extra** Mains adapter 110 – 240 V › 24 V | MPS-50 |



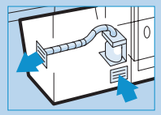
230-volt connection with low-priced mains adapters (p. 98 – 101)

## Accessory for CU-94, CU-95 and CU-96 4.07

| Air exhaust hood with counterpart and 2 m hose | |
|---|---|

| Product | Ref. No. |
|---|---|
| Air exhaust hood with counterpart | W480.3 |

Accessory to ensure air circulation

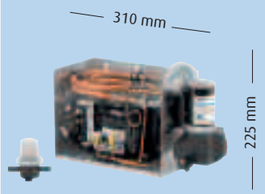




Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO ColdMachine 97 4.07




Depth: 250 mm

**Energy-saving AEO electronics**

| Water-cooled unit for extra-large refrigeration capacities and for use in tropical waters | |
|---|---|
| Cooling capacities | 400 litres max. normal refrigeration with direct evaporators, 250 litres max. with cold accumulators, 200 litres max. for deep-freezing |
| Voltage | 12/24 volts DC |
| Power input | approx. 60 to 100 watts, depending on the evaporator type |
| System | Fully hermetic Danfoss BD50F compressor with AEO electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, self-sucking water pump, seawater-cooled condenser, self-sealing valve couplings |
| Weight | approx. 7.5 kg |
| Quality features | Suitable for floor mounting, corrosion-resistant stainless steel mounting plate, Danfoss AEO electronics |

| Product | Ref. No. |
|---|---|
| ColdMachine 97 | CU-97 |
| **Optional extra** Mains adapter 110 – 240 V › 24 V | MPS-50 |

Water-cooled unit

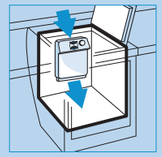
With corrosion-resistant stainless steel mounting plate

## Air circulating evaporator VD-14N for Series 90 4.07

Depth: 65 mm

| Air circulating evaporator for installation in chest and upright refrigerators, especially suitable for large refrigeration capacities and high ambient temperatures | |
|---|---|
| Cooling capacities | 300 litres max. with insulation 35 mm PU, 400 litres max. with insulation 50 mm PU |
| Power input | approx. 80 watts |
| Average running time | 50% with 35 mm PU insulation, 35% with 50 mm PU insulation, both at +5°C interior temperature, +32°C ambient temperature and medium cooling capacities |
| Power consumption | Power input x average running time |
| System | High-performance air circulating evaporator, especially effective with enlarged surface area. Radial fan with enhanced ventilation capacity, continuously variable room thermostat for optimal temperature distribution in the refrigeration compartment. Ease of installation with self-sealing valve couplings and flexible connection pipe (approx. 2.5 m). Sturdy, white plastic housing. |
| Weight | approx. 2.0 kg |

| Product | Ref. No. | |
|---|---|---|
| Air circulating evaporator VD-14N for Series 90 | VD-14N | (incl. thermostat) |



Circulating air evaporator for optimal cooling performance at minimal power consumption

Continuously variable room thermostat

## AEO electronics (Adaptive Energy Optimiser) for Series 90

### Here's how AEO electronics work

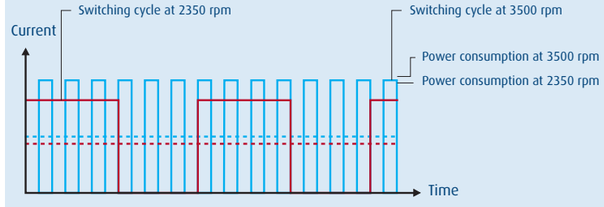
After a power-saving soft start the AEO controller gradually increases the compressor speed until the preset temperature is reached. The compressor speed adjusts automatically to the current cooling requirement.

This optimised running pattern minimises the number of compressor starts. The result: reduced energy consumption, less strain on the battery.

### Switching pattern with AEO and standard electronics

**AEO electronics**
Lower energy consumption due to reduced number of switching cycles with automatic, load-dependent speed adjustment

**Standard electronics**
Higher energy consumption due to more frequent switching cycles



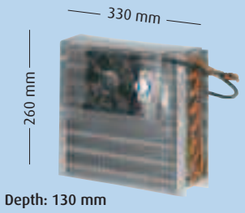

### Advantages of AEO electronics

- Power regulation by way of automatic speed adjustment
- Saves energy
- Reduces the strain on the battery by minimising the number of compressor starts
- Reduced number of switching cycles and optimised running time extends the service life of the refrigeration system and the battery

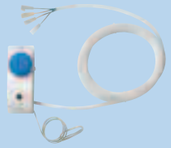


Contents, specifications and availability are subject to change serving the technical improvement.

## Air circulating deep-freeze evaporator VD-16 for Series 90



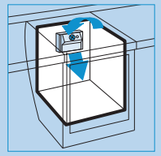

Depth: 130 mm



Thermostat

| Air circulating deep-freeze evaporator for installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 130 litres max. with insulation 50 mm PU,<br>200 litres max. with insulation 100 mm PU |
| Power input | approx. 60 watts |
| Average running time | 55% with 50 mm PU insulation,<br>40% with 100 mm PU insulation,<br>both at +32°C ambient temperature and medium cooling capacity |
| Power consumption | Power input x average running time |
| System | High-performance air circulating fin evaporator in a transparent plastic housing, self-sealing valve couplings, flexible connection pipe approx. 2.5 m, continuously variable deep-freeze thermostat integrated in the evaporator housing |
| Weight | approx. 2.5 kg |

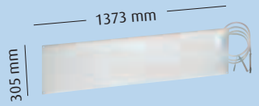
| Product | Ref. No. | |
|---|---|---|
| Air circulating deep-freeze evaporator VD-16 for Series 90 | VD-16 | (incl. thermostat) |



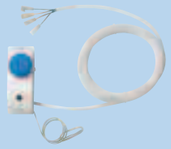
Tailor-made for deep-freezing!

Air circulating deep-freeze evaporator for optimal cooling performance at minimal power consumption

## Plate evaporator VD-21 for Series 90 4.07



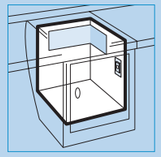

Depth: 10 mm



Thermostat

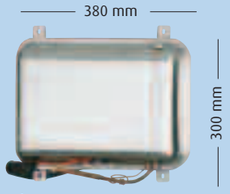
| Plate evaporator for installation in chest refrigerators, especially suitable for large refrigeration capacities, also for deep-freezing up to 150 litres | |
|---|---|
| Cooling capacities | 250 litres max. refrigeration or<br>100 litres deep-freezing with insulation 50 mm PU,<br>300 litres max. refrigeration or<br>150 litres deep-freezing with insulation 100 mm PU |
| Power input | approx. 60 watts |
| Average running time | 50% with 35 mm PU insulation and<br>40% with 50 mm PU insulation (for normal refrigeration),<br>60% with 50 mm PU insulation (for deep-freezing) and<br>40% with 50 mm PU insulation (for deep-freezing)<br>each with +32°C ambient temperature and for medium cooling capacities |
| Power consumption | Power input x average running time |
| System | Standard plate evaporator with large surface, self-sealing valve coupling, flexible connection pipe approx. 2 m, continuously variable thermostat (for external installation, with blue turning knob and LED indicator, white plastic housing), for refrigeration and deep-freezing |
| Weight | approx. 4.0 kg |

| Product | Ref. No. | |
|---|---|---|
| Plate evaporator VD-21 for Series 90 | VD-21 | (incl. thermostat) |



Thermostat with LED indicator

## Cold accumulator VD-06 for Series 90 4.07



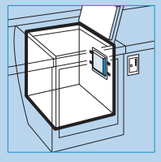

Depth: 62 mm

Depth: 45 mm

TEC electronic controller

| Cold accumulator for vertical installation in chest and upright refrigerators | |
|---|---|
| Cooling capacities | 200 litres max. with insulation 50 mm PU,<br>250 litres max. with insulation 100 mm PU |
| Power input | approx. 80 watts |
| Battery load | At one charge/discharge cycle per day = 10 watts/hour |
| Charging time | approx. 1.5 hours |
| Discharging time | 8 to 18 hours (without compressor operation) |
| System | Stainless steel cold accumulator with integrated high-performance fin evaporator, self-sealing valve couplings, continuously variable by means of electronic TEC controller |
| Pipe length | 2.5 m |
| Weight | approx. 5.0 kg |

| Product | Ref. No | |
|---|---|---|
| Cold accumulator VD-06 for Series 90 | VD-06 | (incl. TEC controller) |



Cold accumulator with TEC electronic controller



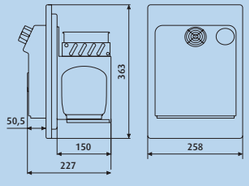
Contents, specifications and availability are subject to change serving the technical improvement.

# Super-compact and easy to install

## WAECO ColdMachine CS-NC15

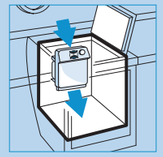
**The compact cooling unit consists of the high-performance air circulating fin evaporator VD-15 and the power-regulated cooling unit of Series 80.** A perfect match that provides rapid-chill capability and high cooling performance. The tried and tested Danfoss BD35F compressor ensures economical and super-quiet running. This cooling unit is the perfect choice for chest coolers with capacities from 60 litres upwards. Depending on the insulation, it can be used for refrigeration compartments up to 250 litres. Installation is quick and easy. All that's required is a hole cut to match the size of the cooling unit. The CS-NC 15 is then simply screwed from inside to the mounting plate.

## WAECO ColdMachine CS-NC15 4.07




| Compact cooling unit with stainless steel grille and high-performance air circulating fin evaporator | |
|---|---|
| Cooling capacities | 200 litres max. with insulation 35 mm PU,<br>250 litres max. with insulation 50 mm PU |
| Voltage | 12/24 volts DC |
| Power input | approx. 60 watts |
| System | Fully hermetic Danfoss BD35F compressor with control electronics and integrated low-voltage protection, low-voltage cut-off, electronic reverse pole protection, brushless DC fan, fin condenser, high-performance air circulating fin evaporator in white plastic housing with brushless fan, fast chill-down capability with air circulating operation |
| Average running time | 40% with 35 mm PU insulation,<br>30% with 50 mm PU insulation,<br>both at +5°C interior temperature,<br>+32°C ambient temperature and medium cooling capacities |
| Weight | approx. 8.5 kg |
| Colour | White |
| Quality features | Rapid-chill capability with air circulating operation, continuously variable thermostat (integrated in the evaporator housing), low-voltage protection, low-voltage cut-off |

| Product | Ref. No. |
|---|---|
| ColdMachine CS-NC15 | CS-NC15 |



Air circulating evaporator for optimal cooling performance at minimal power consumption

Easy to install



Contents, specifications and availability are subject to change serving the technical improvement.

**The following pages will help you to find out a bit more about the wide range of WAECO CoolPower accessories. Although not very spectacular to look at, they will help you to use the possibilities of mobile cooling to the full – regardless of whether you've got a thermoelectric or compressor powered cooling appliance.**

Thanks to **WAECO CoolPower accessories** you can be sure that your car cooler does not exhaust the vehicle battery. Do you want a mains connection for your portable compressor cooler, if possible, for worldwide use? Even if that connection is not provided as standard, you can enjoy fresh snacks and cool drinks in your holiday home or hotel room thanks to the **CoolPower mains adapter**.

You'd like to run your 12-volt thermoelectric cooler from the 24-volt battery of your utility vehicle? Go ahead – it's no problem with a **CoolPower voltage converter**.

# Electronic accessories for coolers and refrigerators

## Small products – great effect

**There's a solution to any refrigeration problem and to any onboard situation. In most cases, this solution will come from the WAECO CoolPower range. You can be sure of that!**



Contents, specifications and availability are subject to change serving the technical improvement.

## Mobile cooling with 230 volts!

Using your cooler in your hotel room, in your holiday home, or on the campsite is no problem at all. Just run it from the power socket. All you have to do is connect the matching WAECO CoolPower 230-volt mains adapter, it will work a treat.

**WAECO thermoelectric coolers:**
WAECO CoolPower EPS 817 mains adapter 230 V › 12 V **Page 100**

**WAECO compressor coolers with Danfoss BD35F compressor:**
WAECO CoolPower EPS 100 mains adapter 230 V › 24 V **Page 101**

## Mains power worldwide!

Boundless energy: WAECO CoolPower mains adapters operate in an input voltage range from 110 to 240 volts AC. Therefore, you and your cooling appliance will cope with the mains supplies of nearly all continents (Europe, America, Asia).

**WAECO compressor refrigerators and cooling units with Danfoss BD35F compressor:**
WAECO CoolPower MPS 35 mains adapter 110–240 V › 24 V **Page 101**

**WAECO compressor cooling appliances with Danfoss BD35F or BD50F compressor:**
WAECO CoolPower MPS 50 mains adapter 110–240 V › 24 V **Page 101**

## Always the perfect battery voltage!

WAECO CoolPower voltage montiros make sure you won't have any problems, even if you forgot to disconnect your cooler when you parked the car. When the car battery voltage drops, the unit automatically switches the cooler off – and back on again when the voltage returns to normal.

**WAECO thermoelectric coolers:**
WAECO CoolPower M 50U voltage monitor 12 volts **Page 100**

**WAECO compressor coolers:**
Good for you – these units come with an integrated voltage monitor as standard!

## How you turn 24 volts into 12 volts!

You've got a 12-volt cooler, but your truck, your boat, or your motorhome has a 24-volt connection? Don't worry. Take the cooler anyway, but don't forget the voltage converter. That way you can be sure that your 12-volt unit is supplied with the right type of voltage.

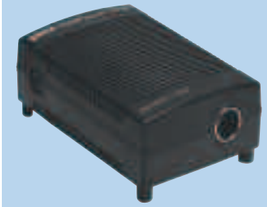
**WAECO thermoelectric coolers:**
WAECO CoolPower 804 K, voltage converter 24 V › 12 V **Page 100**

**WAECO compressor coolers:**
12/24-volt connection available as standard; no need for a voltage converter!

Contents, specifications and availability are subject to change serving the technical improvement.

# Accessories for thermoelectric coolers

## WAECO CoolPower EPS 817 3.17



**Mains adapter** for connection of thermoelectric **12-volt** coolers to the **230-volt** mains. Ideal for use at home, in hotels, at campsites, in holiday homes, etc.

| | |
|---|---|
| Input voltage | 230 volts AC/50 Hz |
| Output voltage | 13 volts DC |
| Continuous load | 6 A |
| Dimensions (W x H x D) | 115 x 65 x 170 mm |
| Weight | 0.6 kg |
| Test marks | GS, CE |

| Product | Ref. No. |
|---|---|
| Mains adapter 230 V › 12 V for thermoelectric coolers | EPS-817U |

Hassle-free mains operation for 12-volt thermoelectric coolers

## WAECO CoolPower M 50U 3.17

**Voltage monitor for 12-volt applications – always the perfect battery voltage**

Voltage monitor integrated in the supply cable, for universal 12-volt applications with cigarette lighter socket as output. Enables automatic cut-off at low battery voltage and cut-in at normal voltage. Status indicated by LEDs.

| | |
|---|---|
| Cut-off voltage | 11.6 volts DC |
| Cut-in voltage | 12.8 volts DC |
| Current | 5 amps max. |
| Quality features | Status read-out by LEDs, ready for connection with cigarette lighter plug |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| Voltage monitor 12 V 5 A | M-50U-12 |

Protects the vehicle battery from excessive discharging!

Designed for universal use!

## WAECO CoolPower 804 K 3.17

**Voltage converter 24 volts › 12 volts** for operation of thermoelectric coolers and other insulated electric consumers that are connected to the battery for longer times.

| | |
|---|---|
| Input voltage | 20 – 30 volts DC |
| Output voltage | 12.5 volts DC ± 10 % |
| Efficiency | 90% max. |
| Short-time load | 6 A/70 watts |
| Continuous load | 4 A/48 watts |
| No-load current input max. | 60 mA |
| Dimensions (W x H x D) | 53 x 45 x 120 mm |
| Weight | 0.25 kg |
| Quality features | Energy-saving switch mode design with connection |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) |

| Product | Ref. No. |
|---|---|
| Voltage converter 24 V › 12 V | 804K-2412 |

12-volt coolers in 24-volt vehicles

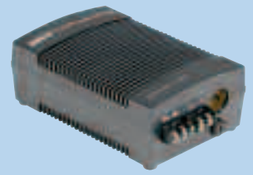


Contents, specifications and availability are subject to change serving the technical improvement.



# Electronic accessories for cooling appliances

## WAECO CoolPower EPS 100 3.17



**Mains adapter** for hassle-free connection of **12-/24-volt** cooling appliances to the **230-volt** mains. Suitable for all WAECO cooling appliances with **Danfoss BD35F compressor**.

| | |
|---|---|
| Input voltage | 230 volts AC |
| Output voltage | 25 volts DC |
| Output power | 100 watts |
| Dimensions (W x H x D) | 115 x 65 x 170 mm |
| Output current | 4 A |
| Weight | approx. 0.7 kg |
| Quality features | Switch mode, automatic priority for mains operation |
| Test mark | CE |

| Product | Ref. No. |
|---|---|
| Mains adapter 230 V › 24 V | EPS-100W |

Power from the socket for compressor coolers with Danfoss BD35F or BD50F compressor

Automatic priority circuit for mains operation

## WAECO CoolPower MPS 35 3.17

**Mains adapter** for hassle-free connection of **12-/24-volt** cooling appliances to **110 – 240-volt** mains systems. Suitable for all WAECO refrigerators and cooling units with **Danfoss BD35F compressor**.

| | |
|---|---|
| Input voltage | 110 – 240 volts AC |
| Output voltage | 25 volts DC |
| Output power | 110 watts |
| Battery voltage | 12/24 volts DC |
| Output current | 2.5 A |
| Dimensions (W x H x D) | 115 x 55 x 160 mm |
| Weight | approx. 0.7 kg |
| Quality features | Switch mode, automatic priority for mains operation |
| Test marks | GS, CE |

| Product | Ref. No. |
|---|---|
| Mains adapter 110 – 240 V › 24 V | MPS-35 |

## WAECO CoolPower MPS 50 3.17

**Mains adapter** for hassle-free connection of **12-/24-volt** cooling appliances to **110 – 240-volt** mains systems. Suitable for all WAECO refrigerators and cooling units with **Danfoss BD35F/BD50F compressor.**

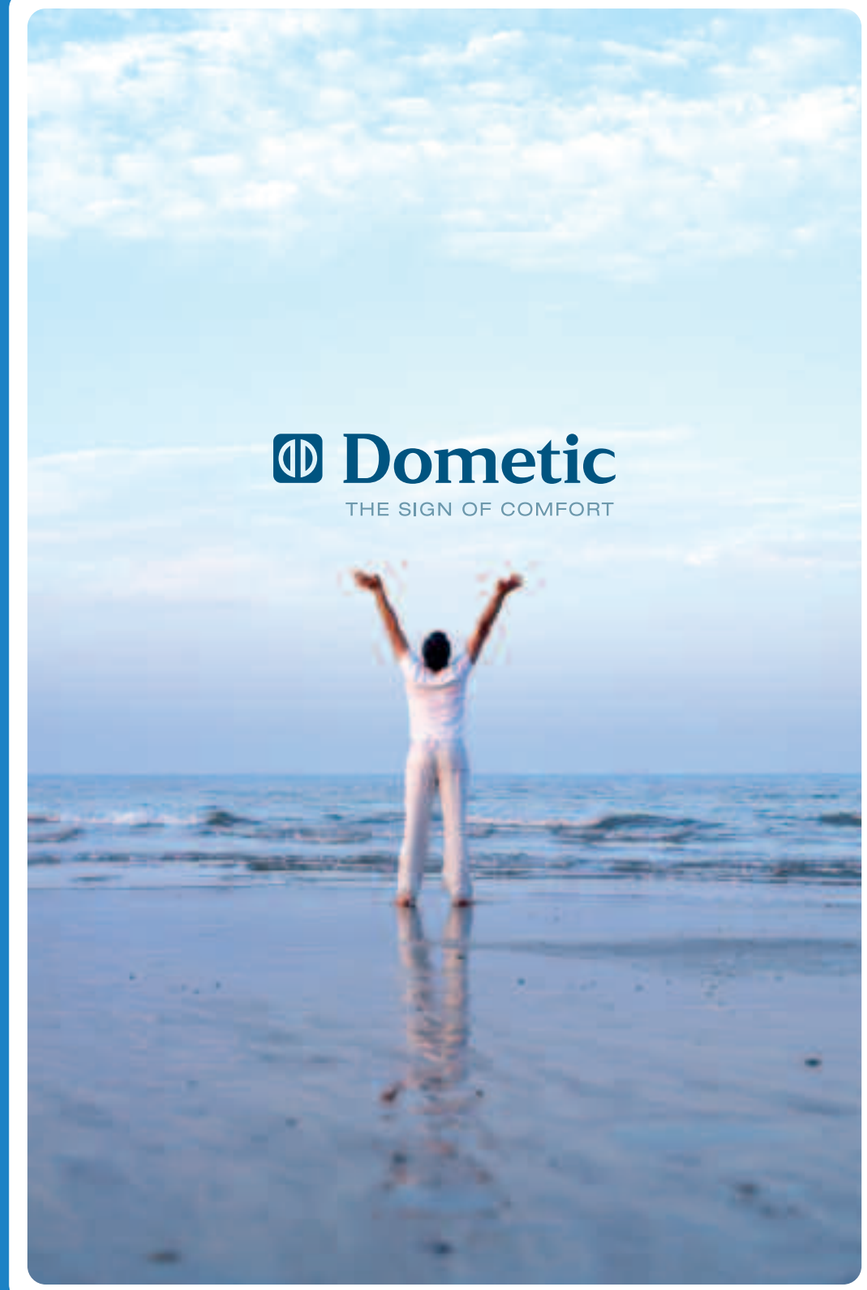
| | |
|---|---|
| Input voltage | 110 – 240 volts AC |
| Output voltage | 27 volts DC |
| Battery voltage | 150 watts |
| Batteriespannung | 12/24 Volt DC |
| Output current | 6 A |
| Dimensions (W x H x D) | 120 x 70 x 200 mm |
| Weight | approx. 1 kg |
| Quality features | Switch mode, automatic priority for mains operation |
| Test mark | CE |

| Product | Ref. No. |
|---|---|
| Mains adapter 110 – 240 V › 24 V | MPS-50 |

Contents, specifications and availability are subject to change serving the technical improvement.

# Air conditioners


- **Dometic CA 1000**
  Roof air conditioner with compressor technology 108 - 109
- **Dometic B 1600**
  Roof air conditioner with compressor technology and heating 110 - 111
- **Dometic B 2200**
  Roof air conditioner with compressor technology and heating 112 - 113
- **Dometic CA 2500**
  Roof air conditioner with compressor technology, heating and fresh-air mode 114 - 115
- **Dometic HB 2500**
  Under-bench air conditioner with compressor technology and energy-saving heat pump heating system 116 - 117

# Choose your favourite climate

## The new, comprehensive air conditioning programme

### Under-bench and roof air conditioners from a single source

Dometic and WAECO have pooled their air conditioning expertise. As a result, we can now offer a seamless range that includes air conditioners for roof mounting as well as for installation inside the vehicle. These systems provide you with a perfect climate both in stationary and mobile use. All you need is the matching DC kit. Choose the climate control system that suits your vehicle and your personal idea of comfort!



Contents, specifications and availability are subject to change serving the technical improvement.

Dometic CA 1000

### Roof conditioners with compressor technology

**They use the physical principle that cold air sinks.** The cold air streams can be spread in the vehicle interior in an energy-saving manner and without performance loss. Installation is simple: Normally the air conditioner simply replaces the existing roof window. Dometic roof air conditioners have been largely adapted to the measurements of all commonly used roof windows.

Pages 108 – 115

Dometic HB 2500

### Under-bench air conditioner with integrated heating

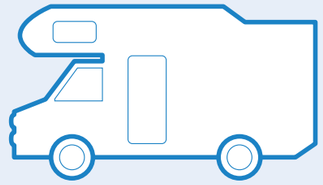
**This air conditioner is integrated in the storage box of your caravan or mobile home.** There is no change to the roof load or the outer dimensions of the vehicle. And you can keep your roof window.

Besides the cooling function, the Dometic HB 2500 has an energy-saving heating function.

Pages 116 – 117

### Use an air conditioner to match the size of your vehicle. Check here for systems which come into question:

| Type | Caravans<br>Vehicle length | Motorhomes<br>Vehicle length |
|---|---|---|
| Dometic CA 1000 | up to 5 m | up to 5 m |
| Dometic B 1600 | up to 6 m | up to 6 m |
| Dometic B 2200 | up to 7 m | up to 7 m |
| Dometic CA 2500 | up to 8 m | up to 8 m |
| Dometic HB 2500 | 5 m plus<br>(depending on the air distribution system used) | 5 m plus<br>(depending on the air distribution system used) |



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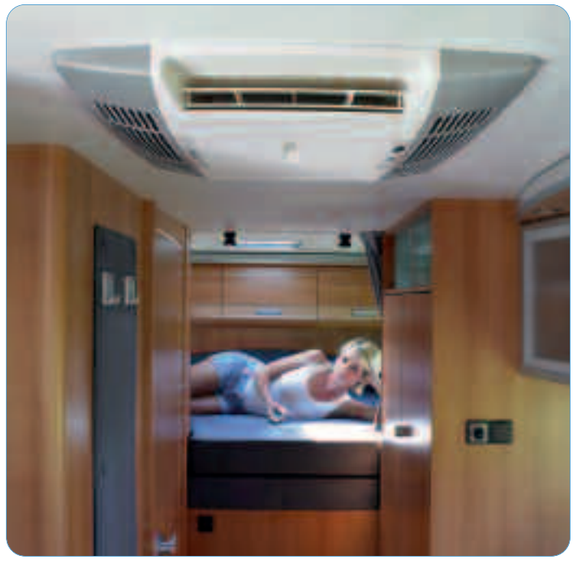


# Perfect climate control on the move and at rest

## DC kits for air conditioning while driving

**Dometic air conditioners give you perfect climate control wherever you are: at your holiday destination and on the way there. For all air conditioners we offer matching DC kits for mobile operation from the 12-volt vehicle battery.**

Air conditioning while driving has a lot going for it: your journey is more relaxed, and your concentration is better. You spend your breaks cool and relaxed. And instead of having to bring your cabin to the right temperature once you reach your destination, you can enjoy your holiday right from the start!

### Standard and comfort: three optional DC kits to choose from

For mobile operation of Dometic air conditioners, we have developed three DC kits with different performance levels, features and functions. DC-Kit-3, for example, comes with a high-quality sine wave inverter which gives you the extra benefit of a 230-volt power socket for additional electric appliances. The table below helps you find the DC kit to match the air conditioner you have. For more details, refer to our product information.

**Standard kits:** DC-Kit-1 / DC-Kit-2
- Inverter with sinusoidal output voltage
- Charging current distributor
- Mains priority circuit
- Remote control

**Comfort kit:** DC-Kit-3
- Sine wave inverter
- Additional 230-volt connection for other electric consumers
- Inverter with automatic power-save mode
- Charging current distributor
- Mains priority circuit
- Remote control

Great coffee thanks to air conditioning: the additional 230-volt output of the DC-Kit-3 comfort kit allows for connection of a power-intensive appliance, e.g. a coffeemaker. The kit delivers a peak performance of 3000 watts and 1500 watts on a continuous basis.

### Which kit for which air conditioner?

| DC-Kits | CA 1000 | B 1600 | B 2200 | CA 2500 | HB 2500 |
|---|---|---|---|---|---|
| **DC-Kit-1** | ■ | | | | |
| **DC-Kit-2** | | ■ | ■ | ■ | |
| **DC-Kit-3** | ■ | ■ | ■ | ■ | ■ |

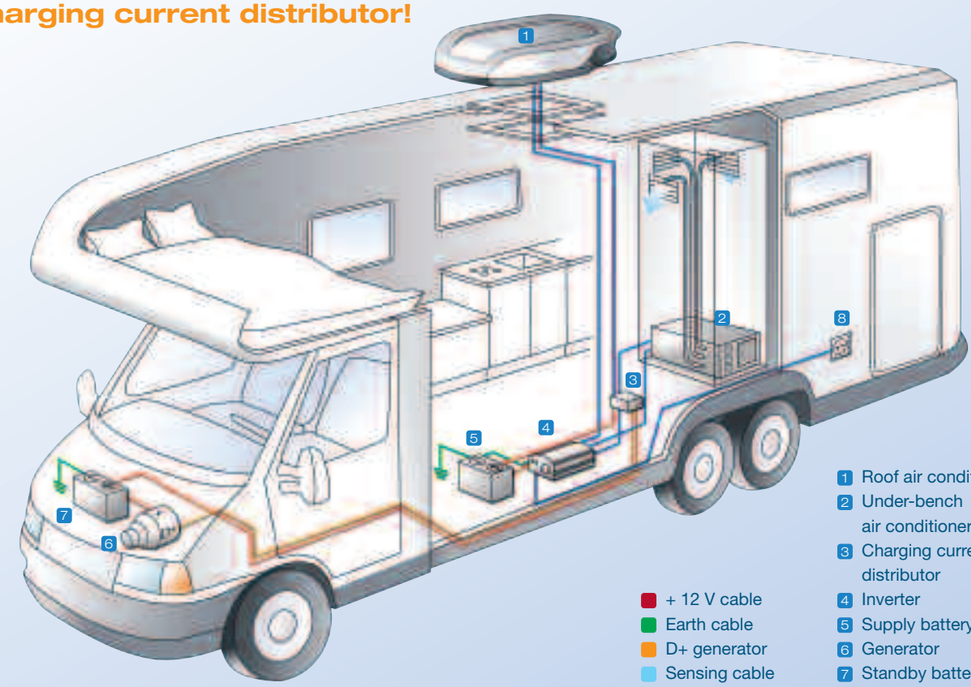


Contents, specifications and availability are subject to change serving the technical improvement.

### The comfort kit: with many extra goodies

Like all DC kits, the DC-Kit-3 incorporates a charging current distributor for hassle-free operation of your Dometic air conditioner while driving. On top of that, this comfort kit features a 1500-watt sine wave inverter with two power sockets. Both deliver a pure sine wave voltage, just like that from a home power socket. One output is for the air conditioner, the other one can be used for additional (sensitive or power-intensive) 230-volt appliances. When the air conditioner is in operation, the second power socket is automatically switched off, and vice versa. This prevents excessive strain on the vehicle electrics.

### Perfect energy management with the charging current distributor!




## The charging current distributor manages the air conditioner's power supply and prevents excessive discharging of the leisure batteries

All three DC kits include a charging current distributor with low-voltage protection. Supplied as a standard accessory, the charging current distributor enables optimal energy efficiency while driving. With its assistance, the air conditioner can be perfectly integrated into the vehicle's energy management system. The unit regulates the current distribution between the starter battery, supply battery and the generator. At the same time, it prevents overload of batteries or onboard electronics. If the generator's capacity is insufficient and the energy required is drawn from the batteries, the charging current distributor turns the air conditioner off for a short period of time to prevent excessive discharging of the starter battery.

**Once the batteries have been recharged, the system is automatically turned on again.**

Contents, specifications and availability are subject to change serving the technical improvement.

# Dometic CA 1000

## Compact, easy, versatile

This air conditioner fits any RV and any budget! The favourably priced Dometic CA 1000 is amazingly compact. At a flat **height of 20 cm** and a **light weight of only 18 kg**, it is ideal for **smaller caravans, motorhomes and panel vans**. The powerful compressor system is quick and easy to install – inside or outside the roof window. Due to its low starting power, the Dometic CA 1000 works simply everywhere and without fail, even on campsites with low electrical circuit protection. Two optional DC kits are available for mobile operation. **Small is smart – welcome to the compact class of vehicle air conditioning!**

- Super compact dimensions, low weight
- Low mounting height of 199 mm, low aerodynamic resistance
- Quick and easy to install on the roof
- Perfect installation results (air conditioner adjusts to the roof thickness)
- Designed for stationary operation
- In combination with DC-Kit-1 or DC-Kit-3, also for mobile operation
- Economical, superbly quiet running
- Impeccable operation on all European campsites due to low starting power (< 3 A)

### Two different air zones in one vehicle

Optimum conditions for living and sleeping: Dometic CA 1000 brings home standards to your mobile home. The ultra-compact, space-saving construction permits problem-free installation of two units on the roof of larger caravans to create separate air zones inside. The roof load is relatively low, as the weight of a CA 1000 "double" is virtually the same as that of a conventional single roof air conditioner. A certain vehicle size provided, you can also combine the CA 1000 with other Dometic air conditioners.



Contents, specifications and availability are subject to change serving the technical improvement.



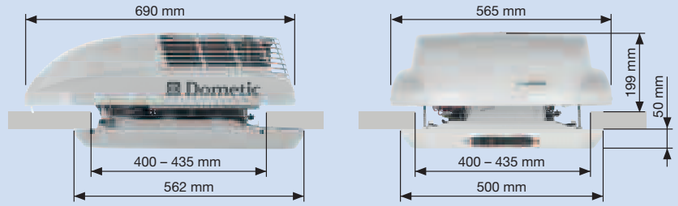
# Technical data

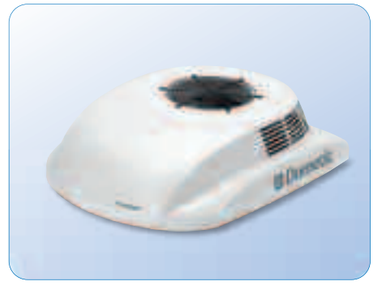
### Dometic CA 1000

**Roof air conditioner for 230-volt stationary operation**
**12-volt mobile operation with DC kit**

| | |
|---|---|
| Cooling capacity | 1000 watts 3400 Btu/h |
| Power consumption | 450 watts |
| Input voltage | 230 volts AC / 50 Hz |
| Current consumption | 1.5 to 2.05 A |
| Necessary circuit protection (campsite) | 3 A |
| Number of blower settings | 2 / auto mode |
| Thermostat temperature control | yes |
| Refrigerant | R134a |
| Dimensions (W x H x D) | 565 x 199 x 690 mm |
| Roof opening / roof thickness | 400 – 435 x 400 – 435 mm / 35 – 50 mm<br>For a smaller roof thickness, use shorter bolts |
| Weight | approx. 18 kg |
| Test marks | TÜV/GS, e-approved to 2006/28/EC<br>(EMC automotive directive) |

Scope of delivery: roof air conditioner, mounting frame, air diffuser unit, fixing materials, installation and operating instructions



### Convenient operation

The Dometic CA 1000 has four adjustable air jets. The self-explanatory digital operator panel shows the preset temperature and blower setting.

### Optional accessories

**DC-Kit-1 standard kit for 12-volt mobile operation**

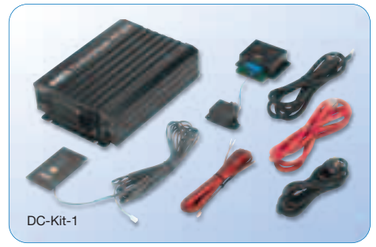
| | |
|---|---|
| Current consumption | 30 to 40 A |
| Recommended generator capacity | ≥ 75 A |
| Recommended total battery capacity | ≥ 80 Ah |
| Continuous output | 1000 watts |
| Dimensions, inverter (W x H x D) | 210 x 77 x 300 mm |

Scope of delivery: inverter (sinusoidal output voltage with mains priority circuit), remote control incl. 5 m supply cable, 2 battery cables 16 mm² (1.5 m long), 230-volt connection cable, charging current distributor with relay

**DC-Kit-3 comfort kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption (at 12 volts DC) | 30 to 40 A |
| Recommended generator capacity<br>(depending on the power drawn by additional electrical appliances) | ≥ 75 A |
| Recommended total battery capacity | ≥ 80 Ah |
| Continuous output | 1500 watts |
| Dimensions, inverter (W x H x D) | 191 x 88 x 415 mm |
| Dimensions, mains priority circuit (W x H x D) | 190 x 80 x 80 mm |

Scope of delivery: sine wave inverter, remote control incl. 7.5 m supply cable, mains priority circuit with 2 power sockets, 2 battery cables 35 mm² (1.5 m long), 2 pieces of 230-volt connection cable, charging current distributor with power relay


DC-Kit-1

DC-Kit-3

# Order specifications

| Product | Ref. No. |
|---|---|
| CA 1000 | 9100100003 |
| **Optional accessories** | |
| DC-Kit-1 standard kit for 12-volt mobile operation | 9100300003 |
| DC-Kit-3 comfort kit for 12-volt mobile operation | 9100300002 |
| Protective cover | 9100300004 |

Contents, specifications and availability are subject to change serving the technical improvement.

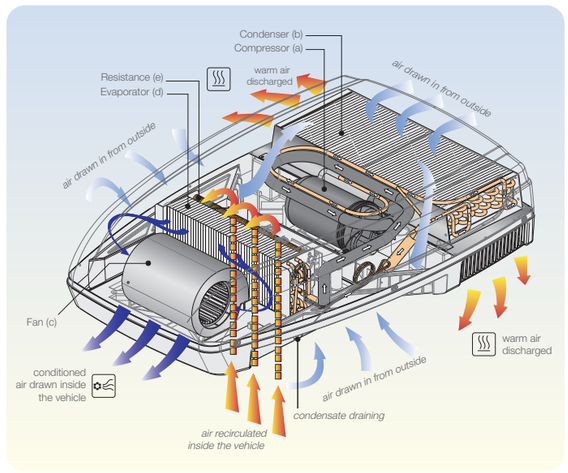
# Dometic B 1600

## With innovative air distribution

**Take one of Europe's most popular air conditioning systems. And provide it with an improved air distribution system.**

**The result: the compressor roof air conditioner Dometic B 1600.** Tailor-made for small and medium recreation vehicles, quick and easy to install. It delivers fresh, dehumidified air free from dust and dirt. Thanks to a new diffuser system, air distribution is possible front or back as well as in both directions. Treat yourself to comfort and freshness in your "mobile home from home"!

- Roof installation gives more efficiency and saves space
- Air conditioner adjusts to the roof thickness
- A healthy climate inside: dehumidified air, without dust and dirt particles
- Individual air flow regulation with two-speed fan
- Safe operation, tilt-insensitive up to 10 degrees
- Additional heating function
- Circuit protection for campsites: 4 A delay fuse
- Designed for stationary operation
- Mobile operation with optional DC-Kit-2 or DC-Kit-3




### Perfect climate on board – here's how it works!

Your Dometic roof air conditioner absorbs the warm air from inside the vehicle and removes dirt and dust particles from it. Its installation on the roof exploits the physical principle of gravity on cold air: the dehumidified, cool air sinks back inside and is distributed by the air diffuser system just as desired.

By the way, Dometic B 1600, B 2200, CA 2500 and HB 2500 air conditioners will also treat you to comfortable heat on cool days or evenings. Just set the desired temperature – the integrated heating element does the rest.



Contents, specifications and availability are subject to change serving the technical improvement.



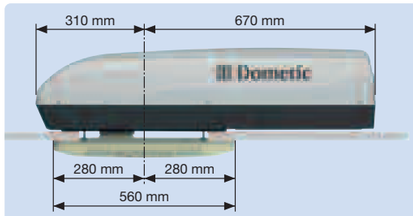
# Technical data

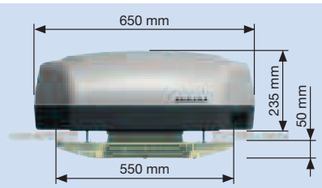
### Dometic B 1600

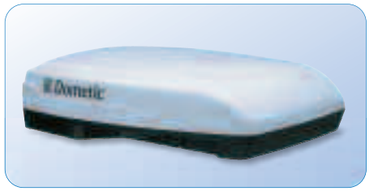
**Roof air conditioner for 230-volt stationary operation**
**12-volt mobile operation with DC kit**

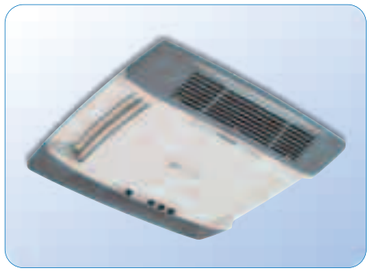
| | | |
|---|---|---|
| Cooling capacity | 1500 watts | 5200 Btu/h |
| Heating capacity (in 230-volt mode only) | 800 watts | |
| Power consumption | 910 watts | |
| Input voltage | 230 volts AC / 50 Hz | |
| Current consumption | 4 A | |
| Necessary circuit protection (campsite) | 4 A delay fuse | |
| Number of blower settings | 2 | |
| Thermostat temperature control | yes | |
| Refrigerant | R407c | |
| Dimensions (W x H x D) | 980 x 235 x 650 mm | |
| Roof opening / roof thickness | 400 x 400 mm / 25 to 45 mm | |
| Weight | approx. 33 kg | |
| Test marks | e-approved to 2006/28/EC (EMC automotive directive) | |

Scope of delivery: roof air conditioner, air diffuser unit, fixing materials, installation and operating instructions



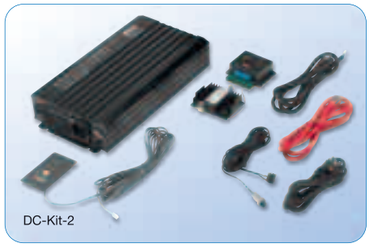


### Optional accessories

**DC-Kit-2 standard kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 90 A max. |
| Recommended generator capacity | ≥ 90 A |
| Recommended total battery capacity | ≥ 100 Ah |
| Continuous output | 1600 watts |
| Dimensions, inverter (W x H x D) | 210 x 77 x 410 mm |

Scope of delivery: inverter (sinusoidal output voltage with mains priority circuit), remote control incl. 5 m supply cable, 2 x 2 battery cables 25 mm² (1.5 m long), 230-volt connection cable, charging current distributor with power relay


DC-Kit-2

**DC-Kit-3 comfort kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 74 A max. |
| Recommended generator capacity | ≥ 90 A |
| Recommended total battery capacity | ≥ 100 Ah |
| Continuous output | 1500 watts |
| Dimensions, inverter (W x H x D) | 191 x 88 x 415 mm |
| Dimensions, mains priority circuit (W x H x D) | 190 x 80 x 80 mm |

Scope of delivery: sine wave inverter, remote control incl. 7.5 m supply cable, mains priority circuit with 2 power sockets, 2 battery cables 35 mm² (1.5 m long), 2 pieces of 230-volt connection cable, charging current distributor with power relay

DC-Kit-3

# Order specifications

| Product | Ref. No. |
|---|---|
| B 1600 | 958500176 |
| **Optional accessories** | |
| DC-Kit-2 standard kit for 12-volt mobile operation | 9100300001 |
| DC-Kit-3 comfort kit for 12-volt mobile operation | 9100300002 |

Contents, specifications and availability are subject to change serving the technical improvement.

# Dometic B 2200

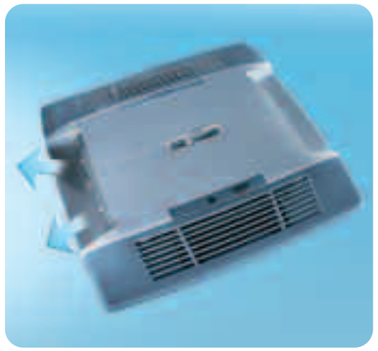
## Advanced-level air conditioning

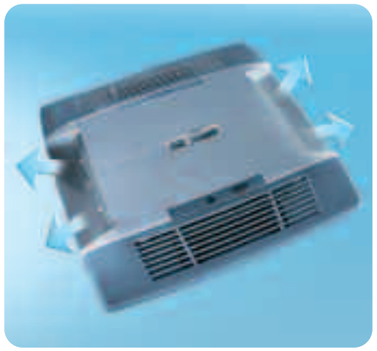
**An elegant installation result inside and out. High performance, low vibration and noise level thanks to advanced technology and aerodynamic design. The Dometic B 2200 creates a perfect climate on board medium and large vehicles.** That's not in the least due to its new, patented air diffuser system. Like the smaller sister model, Dometic B 1600, air distribution is possible front or back as well as to the sides, and the fan speeds are individually adjustable. You want even more in the way of comfort? You're welcome, the Dometic B 2000 comes with integrated illumination and remote control.

- Roof installation gives more efficiency and saves space
- Air conditioner adjusts to the roof thickness
- A healthy climate inside: dehumidified air, without dust and dirt particles
- Individual air flow regulation with two-speed fan
- Comfort remote control for fan speed and temperature
- Integrated illumination
- Safe operation, tilt-insensitive up to 10 degrees
- Additional heating function
- Circuit protection for campsites: 5 A delay fuse
- Designed for stationary operation
- Mobile operation with optional DC-Kit-2 or DC-Kit-3

### Air vent in perfect shape

Anything that's constantly on view should look particularly good. That's what we had in mind when designing the air vent for the B 2200. Its integrated interior lighting provides extra comfort, and a perfect frame for the patented air diffuser system of the Dometic B 2200. The diffuser permits distribution of the air flow to the front or back as well as to the sides at the same time, just the way you like it.







Contents, specifications and availability are subject to change serving the technical improvement.



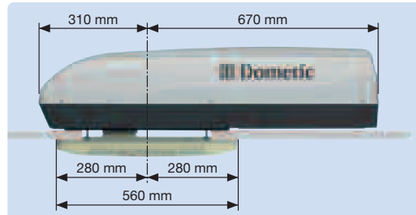
# Technical data

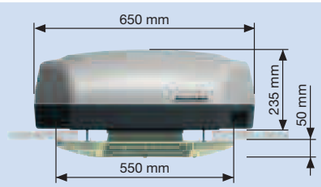
### Dometic B 2200

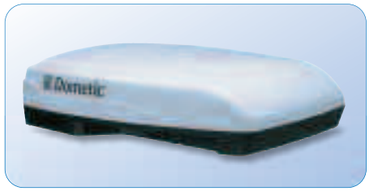
**Roof air conditioner for 230-volt stationary operation**
**With DC kit also for 12-volt mobile operation**

| | |
|---|---|
| Cooling capacity | 2050 watts 7000 Btu/h |
| Heating capacity (in 230-volt mode only) | 1200 watts |
| Power consumption | 910 watts |
| Input voltage | 230 volts AC / 50 Hz |
| Current consumption | 5 A |
| Necessary circuit protection (campsite) | 5 A delay fuse |
| Number of blower settings | Automatic |
| Thermostat temperature control | yes |
| Refrigerant | R407c |
| Dimensions (W x H x D) | 980 x 235 x 650 mm |
| Roof opening / roof thickness | 400 x 400 mm / 30 to 78 mm |
| Weight | approx. 34 kg |
| Test marks | e-approved to 2006/28/EC (EMC automotive directive) |

Scope of delivery: roof air conditioner, air diffuser unit, fixing materials, installation and operating instructions



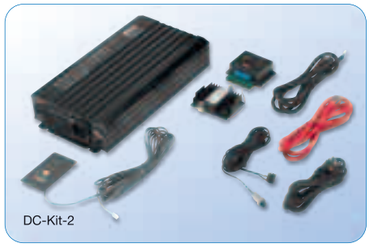
**Remote control included**
Manual control directly on the unit or from a distance: either is possible with the Dometic B 2200.

### Optional accessories

**DC-Kit-2 standard kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 100 – 150 A |
| Recommended generator capacity | ≥ 150 A |
| Recommended total battery capacity | ≥ 250 Ah |
| Continuous output | 1600 watts |
| Dimensions, inverter (W x H x D) | 210 x 77 x 410 mm |

Scope of delivery: inverter (sinusoidal output voltage with mains priority circuit), remote control incl. 5 m supply cable, 2 battery cables 25 mm² (1.5 m long), 230-volt connection cable, charging current distributor with power relay


DC-Kit-2

**DC-Kit-3 comfort kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 81 – 113 A |
| Recommended generator capacity | ≥ 120 A |
| Recommended total battery capacity | ≥ 200 Ah |
| Continuous output | 1500 watts |
| Dimensions, inverter (W x H x D) | 191 x 88 x 415 mm |
| Dimensions, mains priority circuit (W x H x D) | 190 x 80 x 80 mm |

Scope of delivery: sine wave inverter, remote control incl. 7.5 m supply cable, mains priority circuit with 2 power sockets, 2 battery cables 35 mm² (1.5 m long), 2 pieces of 230-volt connection cable, charging current distributor with power relay

DC-Kit-3

# Order specifications

| Product | Ref. No. |
|---|---|
| B 2200 | 958500186 |
| **Optional accessories** | |
| DC-Kit-2 standard kit for 12-volt mobile operation | 9100300001 |
| DC-Kit-3 comfort kit for 12-volt mobile operation | 9100300002 |

Contents, specifications and availability are subject to change serving the technical improvement.

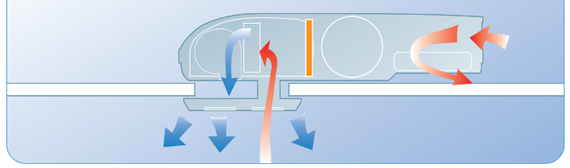
# Dometic CA 2500

## High-end model with additional fresh air mode

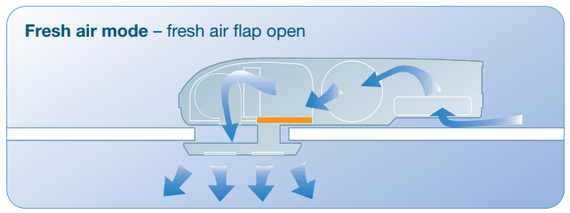
**Do you have a large or medium-sized camper vehicle? Welcome to your personal climate summit! The Dometic CA 2500 high-end air conditioner** provides extraordinary performance at modest energy consumption as well as many details for extra comfort and convenience. One feature sets the CA2500 apart from all other camper air conditioners available in the market: the patented, additional fresh air mode. This pleasant and battery-friendly function should be used whenever the temperature outside is lower than the temperature inside the vehicle – at night, for instance, or on warm spring and autumn days when the sun radiation is strong enough to heat up the vehicle.

- Roof installation gives more efficiency and saves space
- Perfect installation results (air conditioner adjusts to the roof thickness)
- Optimal air distribution inside the vehicle with individually adjustable air jets
- Activation of the two-stage interior fan and temperature regulation possible in the automatic mode
- Additional fresh air mode with patented fresh air flap
- Comfort remote control included with each unit
- Safe operation, tilt-insensitive up to 10 degrees
- Circuit protection for campsites: 5 A delay fuse
- Designed for stationary operation
- With optional DC-Kit-2 or DC-Kit-3 also for mobile operation

**Cooling mode** – fresh air flap closed



**Fresh air mode** – fresh air flap open



### Cooling or fresh air operation – whichever you prefer

Simply use the integrated control to open or close the flap as required.

**Flap position on "cooling":** The air inside the vehicle continuously flows through the air conditioner and cools down.

**Flap position on "fresh air":** Surrounding air is drawn into the vehicle, while accumulated heat is blown out at a very low power consumption. The air conditioner is switched off, only the interior fan is in operation.

Treat yourself to fresh air whenever and however you want – while driving or at night without opening a window. Special fans and separately encapsulated components will ensure quiet running in either mode.



Contents, specifications and availability are subject to change serving the technical improvement.



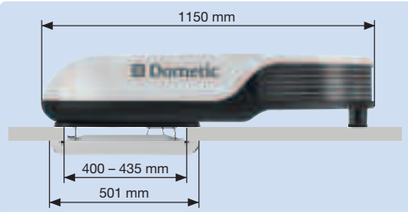
# Technical data

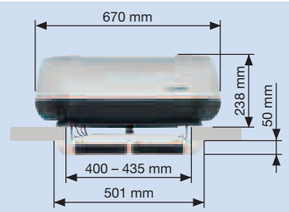
### Dometic CA 2500

**Roof air conditioner for 230-volt stationary operation**
**Mobile operation with optional DC-Kit-2 or DC-Kit-3**

| | | |
|---|---|---|
| Cooling capacity | 2500 watts | 8535 Btu/h |
| Heating capacity (in 230-volt mode only) | 1600 watts | |
| cooling/fresh air/heating mode | 1150 / 80 / 1700 watts | |
| Input voltage | 230 volts AC / 50 Hz | |
| Current consumption cooling/fresh air/heating mode | 4.4 / 0.3 / 7.4 A | |
| Necessary circuit protection (campsite) | 5 A | |
| Number of blower settings | 2 / auto mode | |
| Thermostat temperature control | yes | |
| Refrigerant | R407c | |
| Dimensions (W x H x D) | 670 x 238 x 1150 mm | |
| Roof opening / roof thickness | 400 – 435 x 400 – 435 mm / 28 – 100 mm | |
| Weight | approx. 45 kg | |
| Test marks | e-approved to 2006/28/EC (EMC automotive directive) | |

Scope of delivery: roof air conditioner, air diffuser unit, fixing materials, installation and operating instructions



### Remote control

- Current time
- Timer
- From +10°C to +30°C
- Fan speed
- Fresh air, heating, cooling mode
- Auto a/c

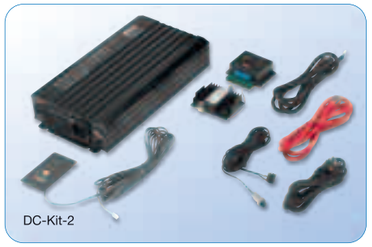
Convenient remote operation, timer for extra comfort and convenience!

### Optional accessories

**DC-Kit-2 standard kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 100 A max. |
| Recommended generator capacity | ≥ 120 A |
| Recommended total battery capacity | ≥ 250 Ah |
| Continuous output | 1600 watts |
| Dimensions, inverter (W x H x D) | 210 x 77 x 410 mm |

Scope of delivery: inverter (sinusoidal output voltage with mains priority circuit), remote control incl. 5 m supply cable, 2 battery cables 25 mm² (1.5 m long), 230-volt connection cable, charging current distributor with power relay


DC-Kit-2

**DC-Kit-3 comfort kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 95 A max. |
| Recommended generator capacity | ≥ 120 A |
| Recommended total battery capacity | ≥ 250 Ah |
| Continuous output | 1500 watts |
| Dimensions, inverter (W x H x D) | 191 x 88 x 415 mm |
| Dimensions, mains priority circuit (W x H x D) | 190 x 80 x 80 mm |

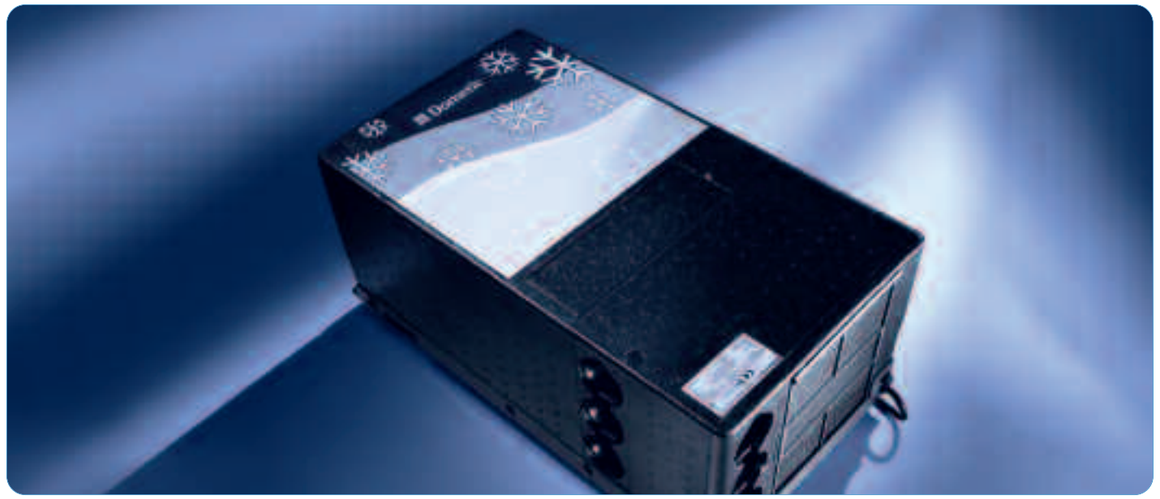
Scope of delivery: sine wave inverter, remote control incl. 7.5 m supply cable, mains priority circuit with 2 power sockets, 2 battery cables 35 mm² (1.5 m long), 2 pieces of 230-volt connection cable, charging current distributor with power relay

DC-Kit-3

# Order specifications

| Product | Ref. No. |
|---|---|
| CA 2500 | 9100100001 |
| **Optional accessories** | |
| DC-Kit-2 standard kit for 12-volt mobile operation | 9100300001 |
| DC-Kit-3 comfort kit for 12-volt mobile operation | 9100300002 |

Contents, specifications and availability are subject to change serving the technical improvement.



# Dometic HB 2500

## The unique under-bench air conditioner

**Experience the world's first under-bench air conditioner with genuine heating function! Regardless of whether it is tropically hot or unpleasantly cold outside: the climate inside your vehicle is always perfect.** The Dometic HB 2500 purifies and dehumidifies the air, cools or warms it. The air is evenly distributed to the different areas of the vehicle via three outlets. The position of these outlets is variable and can be individually adapted to your vehicle. A new-generation ventilator and the special housing design account for the quiet operation of the HB 2500. All functions, which include night-time control and time programming, can be comfortably set via the remote control.

The benefits of under-bench installation are obvious: roof window, outer dimensions and the physical properties of your vehicle remain unaffected.

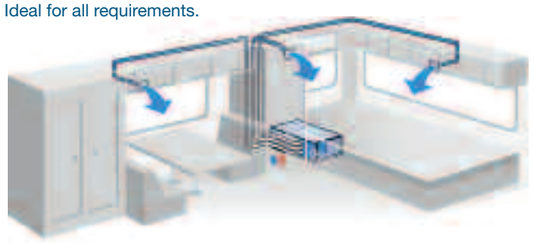
- Unique with combined cooling and heating system
- Air distribution can be adjusted as required
- Adjustable air flow, three fan speeds
- Variable position of the air outlets
- Low-noise air circulation
- Closed, maintenance-free refrigerant cycle
- Low weight
- High operating comfort with multi-functional remote control
- No extra roof load, roof window is retained
- Circuit protection for campsites: 6 A delay fuse
- Designed for stationary operation
- Mobile operation with optional DC-Kit-3

### Central air distribution

High-performance, efficient air distribution

### All-round solution

Even air distribution in each part of the vehicle.
Ideal for all requirements.





Contents, specifications and availability are subject to change serving the technical improvement.



# Technical data

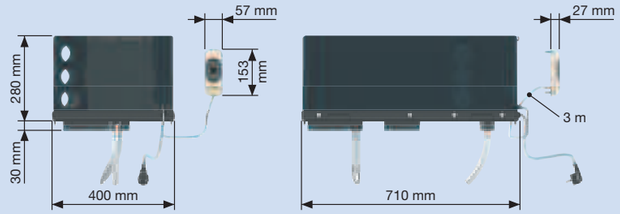
### Dometic HB 2500

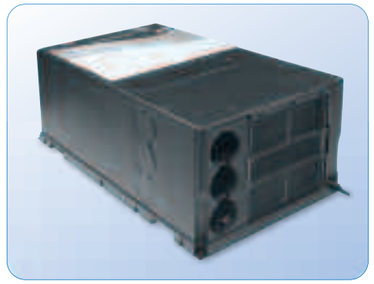
**Under-bench air conditioner for 230-volt stationary operation**
**12-volt mobile operation with DC kit**

| | |
|---|---|
| Cooling capacity | 2500 watts 8500 Btu/h |
| Heating capacity incl. heat pump output* | 3000 watts |
| Power consumption cooling/heating mode | 900 / 1100 watts |
| Input voltage | 230 volts AC / 50 Hz |
| Current consumption cooling/heating mode | 3.9 / 4.8 A |
| Necessary circuit protection (campsite) | 6 A |
| Number of blower settings | 3 |
| Thermostat temperature control | yes |
| Refrigerant | R410a |
| Dimensions (W x H x D) | 400 x 280 x 710 mm |
| Weight | approx. 24.9 kg |
| Test marks | e-approved to 2006/28/EC (EMC automotive directive) |

Scope of delivery: air conditioner, remote control, IR receiver, fixing materials, installation and operating instructions

* depending on the outside temperature



### Elegant design: remote control and receiver

Cooling, heating, fan speed, auto mode, night-time control, time programming – all functions of the Dometic HB 2500 can be comfortably set via remote control.

## Optional accessories

**DC-Kit-3 comfort kit for 12-volt mobile operation**

| | |
|---|---|
| Current consumption | 90 A max. |
| Recommended generator capacity | ≥ 150 A |
| Recommended total battery capacity | ≥ 250 A |
| Continuous output | 1500 watts |
| Dimensions, inverter (W x H x D) | 191 x 88 x 415 mm |
| Dimensions, mains priority circuit (W x H x D) | 190 x 80 x 80 mm |

Scope of delivery: sine wave inverter, remote control incl. 7.5 m supply cable, mains priority circuit with 2 power sockets, 2 battery cables 35 mm² (1.5 m long), 2 pieces of 230-volt connection cable, charging current distributor with power relay

DC-Kit-3

# Order specifications

| Product | Ref. No. |
|---|---|
| HB 2500 | 958500172 |
| **Optional accessories** | |
| DC-Kit-3 comfort kit for 12-volt mobile operation | 9100300002 |
| Circular air inlet grille (2 pieces), ø 190 mm | 958599624 |
| Rectangular air inlet grille, 240 x 240 mm | 386230180 |
| Air outlet grille kit (3 pieces), ø 60 mm | 958500620 |
| Curve (10 pieces), 90°, ø 60 mm | 958500621 |
| Flexible hose, ø 60 mm x 10 m length | 386270087 |

Circular air inlet grille

Rectangular air inlet grille

Air outlet grille kit

Curve

Flexible hose

Contents, specifications and availability are subject to change serving the technical improvement.

# › Mobile electronics


| | | |
|---|---|---|
| WAECO PerfectBattery | Battery refresher | 122 › 123 |
| WAECO PerfectBattery | Battery conditioners | 124 › 125 |
| WAECO PerfectCharge | IU0U chargers and IU0U automatic chargers | 126 › 135 |
| WAECO PerfectCharge | Charging converters | 136 › 137 |
| WAECO PerfectPower | Inverters | 138 › 143 |
| WAECO SinePower | Sine wave inverters | 144 › 147 |
| WAECO PocketPower | Smart inverter | 148 › 149 |
| WAECO PerfectPower | Voltage converters | 150 › 151 |
| WAECO PowerVac | Wet/dry vacuum cleaner with 12-volt rechargeable battery | 152 › 153 |

# Home-like comfort away from home

## With professional electronic accessories

**When travelling, why go without the amenities you are used? Enjoy the same convenience you have at home – with Mobile electronics by WAECO.**

On the following pages you will find all you need for a perfect onboard system. Battery care products keep your vehicle battery in prime condition and extend its service life. IU0U battery chargers provide the optimum charging characteristics, for all types of batteries.

High-performance inverters and sine wave inverters give you the extra convenience of a mobile 230-volt power socket. Feel free to take your favourite gadgets from home and run them from the vehicle supply. Voltage converters turn 12 volts into 24 volts (or vice versa), helping you to make more flexible use of your mobile equipment.



Contents, specifications and availability are subject to change serving the technical improvement.




### WAECO PerfectBattery

**Battery care**

Training and maintenance for lead batteries

You have to keep active to stay young and fit – this truism also applies to vehicle batteries. WAECO PerfectBattery accessories keep batteries in ship-shape condition, even after long periods of standstill. With a training programme consisting of recharging and float charging exercises, they prevent premature battery ageing.

**Pages 122 – 125**

### WAECO PerfectBattery / PerfectCharge

**Battery chargers**

Charging with IU0U technology

WAECO PerfectCharge battery chargers have an exactly defined charging curve for fast, gentle and efficient charging of gel, AGM and wet batteries. Advanced switch-mode technology reliably compensates fluctuations in the mains supply. WAECO PerfectCharge charging converters give your battery a full charge while you are driving.

**Pages 126 – 137**

### WAECO PerfectPower / SinePower

**Inverters**

230 volts on board

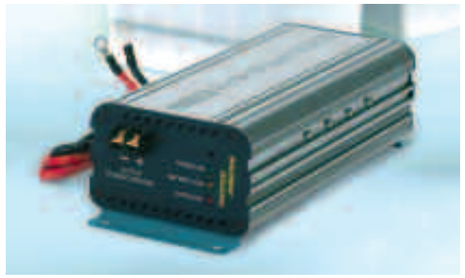
The tried and tested inverters in the WAECO PerfectPower series offer robust technology at affordable prices. For especially power-intensive appliances WAECO recommends an inverter with priority circuit. WAECO SinePower sine wave inverters generate a pure 230-volt sine wave supply, which makes them ideal for sensitive electric appliances.

**Pages 138 – 149**

### WAECO PerfectPower

**Voltage converters**

Stable voltage supply guaranteed



Car radios, hands-free car kits, radio equipment and comfort accessories often have a 12-volt connection. Comparable 24-volt units usually are more expensive and available in limited choice. Therefore, it can be worthwhile for the owners of vehicles with 24-volt electrics to invest in a WAECO PerfectPower voltage converter.

**Pages 150 – 151**


Contents, specifications and availability are subject to change serving the technical improvement.

# Battery Refresher

## A refreshing cure for your battery

**All car drivers dream of owning an “eternal battery”, one that will never let them down. Their dream is reality now, thanks to the battery refresher.** The super-compact appliance reduces sulphate build-up, which is so often the cause of premature failure in lead cell batteries. Even apparently useless batteries can be given a new lease of life. The refresher can be permanently connected to the vehicle battery. It treats the battery to an invigorating training programme – fully automatically, while you are driving.

When you switch the ignition off, the integrated voltage monitor deactivates the appliance.

**The battery refresher is suitable for all types of 12-volt or 24-volt lead batteries.** Ideal for passenger cars, it can also be used on motorhomes and boats. Given the long periods of standstill, the batteries in those vehicles are particularly susceptible to sulphate build-up.

### Sulphate build-up – the insidious poison to your battery

The premature failure of lead batteries is caused by a chemical process known as sulphate build-up. Lead sulphate tends to form crystal deposits on the battery plates. As a result, the effective plate surface decreases, and with it the battery’s capacity and starting ability. A battery charger won’t help in this situation. Given the reduced plate surface, the battery will be unable to take up sufficient power.

The battery refresher tackles the problem at the roots by reducing sulphate build-up. It supplies the battery with direct current impulses. As a result, the sulphate crystals start oscillating and decomposing; there’s no chance for new crystals to form. The plate surface increases again. The battery’s charging capacity is restored to the full.

Contents, specifications and availability are subject to change serving the technical improvement.



WAECO PerfectBattery BR 12 / BR 24 3.28

**Battery refresher 12 or 24 volts – extends the service life of batteries**

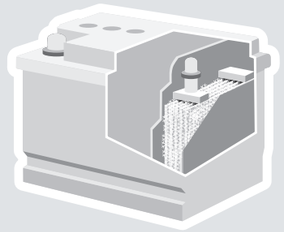
- Simply connected to the battery’s minus and plus poles
- Extends the battery’s service life by reducing sulphate build-up
- Reactivates apparently useless batteries by eliminating sulphate crystal build-ups
- Prevents cold start problems
- Maintains the full charging capacity for several years
- Reduces hazardous waste and saves the environment
- Suitable for batteries up to 300 Ah
- Ideal for cars, motorhomes, boats

| | BR 12 | BR 24 |
|---|---|---|
| Battery voltage | **12 volts DC** | **24 volts DC** |
| Cut-in voltage | > 12.6 volts ± 0.2 volts | > 25.2 volts ± 0.2 volts |
| Stand-by current | < 0.2 mA | < 0.2 mA |
| Dimensions (W x H x D) | 100 x 67 x 25 mm | 100 x 67 x 25 mm |
| Weight | 0.12 kg | 0.12 kg |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) | |

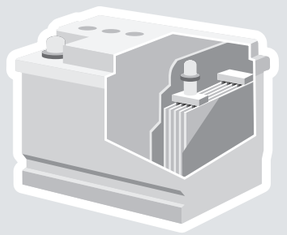
| Products | Ref. No. |
|---|---|
| PerfectBattery BR 12, 12 volts | MBR-100-12 |
| PerfectBattery BR 24, 24 volts | MBR-100-24 |

A long life for lead acid batteries (wet, gel and AGM)

## Extended service life for lead acid batteries



An alarming picture:
battery with sulphate built-up



As good as new:
battery after use of the battery refresher

- **Extends the battery’s service life by reducing sulphate build-up**
- **Reactivates apparently useless batteries by eliminating sulphate crystal build-ups**
- **Maintains the full charging capacity for several years**
- **Prevents cold start problems**
- **Reduces hazardous waste and saves the environment**
- **Suitable for batteries up to 300 Ah**
- **Ideal for cars, motorhomes, boats**

Contents, specifications and availability are subject to change serving the technical improvement.

# Battery conditioners

## Training for the battery

### Three functions: conditioning – charging – back-up

WAECO PerfectBattery BC 100 and BC 200 are **inexpensive battery conditioners that maintain lead batteries** from 10 to 150 Ah by gently simulating driving. As a result, the full capacity can be maintained even after months of standstill. Battery conditioners are ideal for summer vehicles such as soft-tops, motor cycles and vintage cars; the BC 200 model was specifically designed for 6-volt batteries.

WAECO conditioners offer two useful extra functions. They serve as a **battery charger** for batteries between 10 and 30 Ah (motor cycles, vintage cars). They can also be used as a **back-up power supply unit**. When a vehicle's starter battery has to be removed, the conditioners temporarily take over the power supply to the appliances. In this way, stored data – e. g. in car radios – can be retained.



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectBattery BC 100 / BC 200 3.28

**Battery conditioners – training for 12-volt and 6-volt batteries**

- Three functions in one unit: conditioning, charging, back-up
- For service and maintenance of all 6-volt and 12-volt lead batteries
- Simple connection to the cigarette lighter socket or with battery clamps included in the delivery kit
- For cars, motorhomes, boats, vintage cars and motor cycles
- Short-circuit and reverse pole protection
- Condition batteries with a capacity from 10 Ah to 150 Ah
- Charge batteries with a capacity from 10 to 30 Ah

| | BC 100 |
|---|---|
| Battery connections | 1 |
| Input voltage | 230 volts AC |
| Input voltage range | 180 to 253 volts AC / 50 to 60 Hz |
| End-of charging voltage | 13.8 volts DC |
| Float charging voltage | 13.0 volts DC |
| Charging indicator | 3 LEDs |
| Maximum charging current | 1.0 A |
| Operating temperature | 0°C to +50°C |
| Dimensions (W x H x D) | 70 x 100 x 60 mm |
| Weight | 0.45 kg |
| Quality features | Overload and short circuit protection |
| Test mark | CE |

**Scope of delivery:**
Basic unit, adapter cable with battery clamps, operating instructions

| | BC 200 |
|---|---|
| Battery connections | 1 |
| Input voltage | 230 volts AC |
| Input voltage range | 180 to 253 volts AC / 50 to 60 Hz |
| End-of charging voltage | 7.0 volts DC |
| Float charging voltage | 6.5 volts DC |
| Charging indicator | 3 LEDs |
| Maximum charging current | 2.0 A |
| Operating temperature | 0°C to +50°C |
| Dimensions (W x H x D) | 70 x 100 x 60 mm |
| Weight | 0.45 kg |
| Quality features | Overload and short circuit protection |
| Test mark | CE |

**Scope of delivery:**
Basic unit, adapter cable with battery clamps, operating instructions

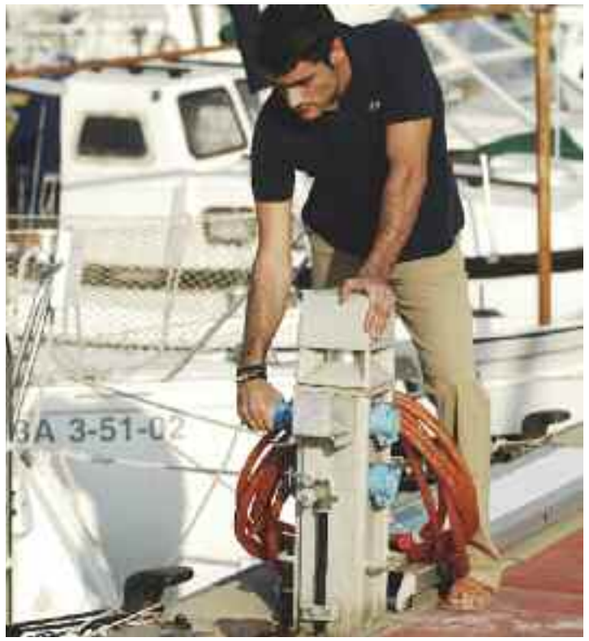
| Products | Ref. No. |
|---|---|
| PerfectBattery BC 100, 12 volts | MBCC-100 |
| PerfectBattery BC 200, 6 volts | MBCC-200 |

**Fitness training for 12-volt and 6-volt batteries**

**Bridge long periods of standstill**

**Can also be used as battery charger and back-up power supply**

Contents, specifications and availability are subject to change serving the technical improvement.



# IU0U chargers by WAECO

## … give your batteries a longer life!

**Starter batteries and leisure batteries are designed for different tasks.** Starter batteries, in order to start the engine, must initially supply a high current level and will then serve as an energy buffer with smaller partial cycles. Supply or leisure batteries, by contrast, are charged and discharged at lower current levels for longer periods of time, which means they are subjected to significantly higher loads. **Correct charging is the key to success.**

**IU0U battery chargers by WAECO** give your batteries a longer life. They provide optimum charging for all types of leisure batteries (gel, AGM and wet), because they charge quickly and gently at the same time.

The comprehensive product offering ranges from inexpensive compact chargers through professional units for simultaneous charging of several batteries to charging converters for battery recharging while driving.

**IU0U battery chargers – the benefits at a glance:**

- **Fast and gentle charging** with IU0U charging characteristic
- **Suitable for all types of lead batteries** (gel, AGM and wet batteries)
- **High energy efficiency** with switch-mode technology
- **Stable voltage supply** without power fluctuations
- **Safe and secure operation:** overload and short-circuit protection
- **Compact design,** low weight
- **Easy installation**



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectBattery BC 400 — IU0U battery charger and conditioner

PerfectBattery BC 400

**WAECO PerfectBattery BC 400** keeps starter and leisure batteries in perfect trim. It's a very compact unit designed for **fast and efficient full charging of batteries up to 50 Ah** – and even higher, where "recharging only" is required.

Page 130

## WAECO PerfectCharge IU 812 — IU0U automatic charger

PerfectCharge IU 812

**The low-priced unit is designed for quick charging of 12-volt vehicle batteries, traction or supply batteries with capacity ratings up to 100 Ah.** IU0U charging characteristics ensure optimal energy supply to the battery. Compact, lightweight, safe and secure, this charger is ideal for use in smaller motorhomes, yachts or caravan movers.

Page 131

## WAECO PerfectCharge IU 1012 — IU0U automatic charger with PFC

PerfectCharge IU 1012

**Super-compact and designed for worldwide use:** this microprocessor-controlled battery charger is great for its extra-wide input voltage range. Power Factor Correction (PFC) ensures hassle-free operation with voltages from 90 to 253 volts. Fast, gentle and full charging with IU0U charging characteristics.

Page 131

## WAECO PerfectCharge IU 1512 – IU 4512 — IU0U automatic chargers

PerfectCharge IU 1512 – IU 4512

**Powerful performance and excellent user comfort are the hallmarks of this well-proven series.** The IU0U battery chargers have been designed for use in motorhomes, caravans and yachts. **As double or triple chargers, they are suitable for simultaneous charging of several batteries.** Noise-free operation in the "sleep mode", remote control and temperature sensor as optional extras. Available in various capacity ratings, for 12- and 24-volt batteries.

Pages 132 – 135

## WAECO PerfectCharge DC 08 – DC 40 — Charging converters and battery chargers

PerfectCharge DC 08 – DC 40

**High-quality charging converters with electrically isolated input and output voltage. Can be used for charging the leisure battery during the drive, or as voltage stabilisers in 12-volt vehicle networks.** The units supply a stable, IU-curve charging voltage – ideal for sensitive appliances. Fluctuations in the onboard power supply are compensated for thanks to the electrical isolation of the input and output voltage. Available in various performance categories.

Pages 136 – 137

Contents, specifications and availability are subject to change serving the technical improvement.

# IU0U chargers
## Intelligent and powerful

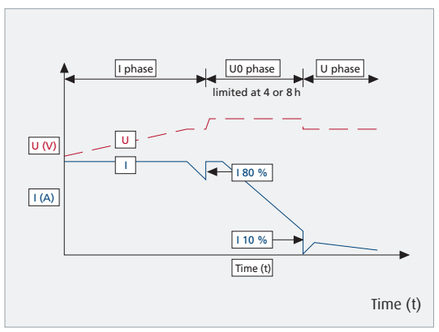
## Choosing the right battery charger

Battery chargers used in campervans or boats are facing a tough job. They have to recharge the leisure batteries as quickly and fully as possible. At the same time, battery power is drawn from the battery for lighting and other electrical appliances.

WAECO IU0U automatic chargers are able to meet these requirements for one significant reason: the limited time of the main charging phase. They are available in various performance categories, from 2 A to 45 A.

How powerful a battery charger has to be depends on the capacity of your battery. To prevent battery damage manufacturers strongly recommend you to use a battery charger of adequate capacity. **As a rule of thumb, the charging current of the battery charger should be at least 10% of the battery capacity.** This is the only way to get a battery-saving full charge in a reasonable period of time. Here's an example: If your battery has a capacity of 150 Ah, you should use a unit with charging current of at least 15 amps (WAECO PerfectCharge IU 1512 or beyond).

## IU0U charging characteristics



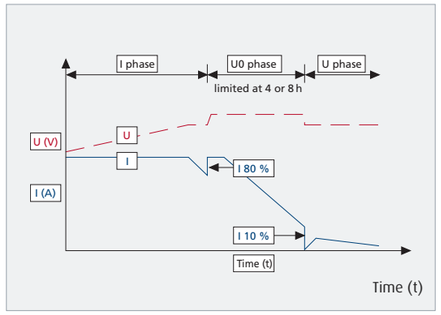

**This fast and gentle charging technology represents an extension of the well-proven IU charging curve.**

It includes the additional time constant 0 and a further constant voltage U for compensation charging. Like with IU charging characteristics charging is initially performed with a constant current. When the gas development voltage has been reached, the voltage is maintained at the same level until the charging current has fallen to a minimum. At that point the charging voltage is reduced to the float charging level – the charging process is completed.



Contents, specifications and availability are subject to change serving the technical improvement.

## Limited time of the U0 phase

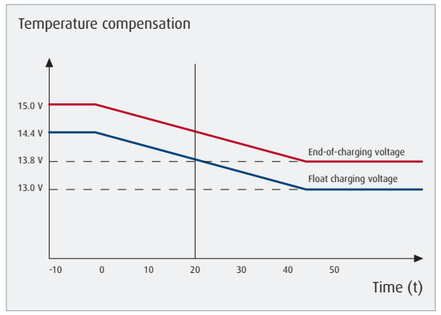



To prevent overcharging when power is drawn from the battery while charging, the duration of the U0 phase is limited.

Ideally, the system should switch from the main charging voltage U0 to the float charging voltage U when the battery is 100% charged. A good indication for a fully charged battery is a low current intake.

If an electrical appliance exerts a current load on the battery during the charging phase (e.g. when a light is on), the charging current will never reach the low current value required by the system to switch over to the U phase. As the U0 phase is limited to a finite time, the switch-over to the U phase occurs regardless of the charging voltage level. This makes it impossible to overcharge the battery.

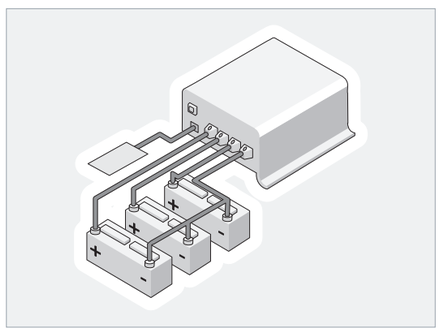
## The advantages of a temperature sensor




A temperature sensor is recommended when battery charging takes place in varying or extreme ambient temperatures. This is because the optimal charging voltage for a battery largely depends on the temperature conditions. In cold batteries, for instance, the gas development voltage is higher than in warm batteries. The sensor is fitted on the battery or close to it and measures the temperature. Depending on the result, the battery charger adjusts the main charging and float charging voltage. At high temperatures the voltage is reduced to prevent battery gassing. At low temperatures the voltage is increased to improve the battery charge. The diagram shows how the temperature sensor adjusts the charging voltage to the temperature of the battery.

All PerfectCharge IU0U charges of series IU 1512 to IU 4512 can be equipped with the TF-500 temperature sensor, which is available as optional extra (p. 135).

## Simultaneous charging of several batteries



When two or more batteries are used independent of one another, the load on them will be different and so will the required extent of recharging.

This is taken into account by the PerfectCharge double and triple chargers in series IU 1512 to IU 4512 (p. 132–135). These units feature two or three battery outputs. Some of them have an extra output for charging the starter battery (p. 133/134).

The chargers incorporate diodes to divide the charging current and prevent charge compensation between the batteries. While charging the weaker battery is initially brought to the charge of the stronger one. Both (or all three) batteries are then charged at the same voltage level until the full charge is reached. Naturally, it is also possible to connect just one or two batteries to a double or triple charger.

Contents, specifications and availability are subject to change serving the technical improvement.

# Battery charger and conditioner

## A flying start – every time

**WAECO PerfectBattery BC 400** keeps starter and leisure batteries in perfect trim. It's a very compact unit designed for **fast and efficient full charging of batteries up to 50 Ah** – and even higher, where "recharging only" is required.

The **IU0U charging curve** guarantees optimum charging of all lead batteries. **Small and compact**, the BC400 is "just right" for permanent installation in motorhomes or boats. The unit has four **fixing attachments** for fast and easy fitting.

### WAECO PerfectBattery BC 400 — 3.28

**Battery charger and conditioner for 12-volt batteries**

- Lightweight and compact
- IU0U charging curve
- PVC cabinet
- 3 different connection cables
- Fast and efficient full charging of starter and leisure batteries up to 50 Ah
- Also suitable for recharging of batteries with larger capacity
- With 4 fixing attachments for permanent installation in smaller motorhomes or boats

| | |
|---|---|
| Battery connections | 1 |
| Input voltage | 230 volts AC |
| Input voltage range | 180 to 253 volts AC / 50 to 60 Hz |
| End-of-charging voltage | 14.4 volts DC |
| Float charging voltage | 13.7 volts DC |
| Charging indicator | LED |
| Maximum charging current | **2 A / 4 A** (switch-over) |
| Operating temperature | –20°C to +50°C |
| Dimensions (W x H x D) | 75 x 59 x 140 mm |
| Weight | 0.5 kg |
| Quality features | Overload and short-circuit protection |
| Test mark | CE |

**Scope of delivery:** basic unit, 3 adapter cables with various connections (battery, clamps, cigarette lighter), operating instructions

| Product | Ref. No. |
|---|---|
| PerfectBattery BC 400, 12 volts | MBCC-400 |

Super-compact IU0U battery charger

For battery capacities up to 50 Ah and higher

Ideal for permanent installation



Contents, specifications and availability are subject to change serving the technical improvement.



# IU0U charging technology at entry-level prices

## Compact units for fast and gentle charging

**Great performance at a small price: the PerfectCharge "compact class" gives you all the benefits of IU0U charging.** The well-proven battery chargers are ideal for use on motorhomes, yachts and boats. Featuring a large input voltage range, they are able to compensate for mains fluctuations, a common annoyance at campsites or in harbours. Advanced switch-mode design makes for high energy efficiency.

WAECO IU0U automatic chargers: perfect technology for charging leisure and starter batteries

### WAECO PerfectCharge IU 812 — 3.16

**IU0U automatic charger 8 A 12 volts for mobile use**
Optimal charging technology for 12-volt wet, gel and AGM batteries

| | |
|---|---|
| Input voltage | 230 volts AC |
| Input voltage range | 180 to 253 volts AC / 50 to 60 Hz |
| Nominal battery voltage | 12 volts DC |
| End-of-charging voltage | 14.4 volts DC |
| Float charging voltage | 13.6 volts DC |
| Maximum battery capacity | 100 Ah |
| Charging curve | IU0U with limited IU0 phase |
| Maximum charging current | **8 A** |
| Operating temperature | 0°C to +50°C |
| Dimensions (W x H x D) | 120 x 70 x 200 mm |
| Weight | approx. 0.9 kg |
| Quality features | Overload and short-circuit protection |
| Test mark | CE |

| Product | Ref. No. |
|---|---|
| PerfectCharge IU 812, 8 A 12 volts | 808-012/1 |

Modified IU0U curve, optimised for charging gel, wet and AGM batteries

Prevents battery overcharging due to limited time of the IU0 phase

Quick charging without power fluctuations

Can also be used as mains adapter

### WAECO PerfectCharge IU 1012 — 3.16

**IU0U automatic charger 10 A 12 volts with PFC, for mobile use**
Optimal charging technology for 12-volt wet, gel and AGM batteries

| | |
|---|---|
| Input voltage | 110 to 230 volts AC |
| Input voltage range | 90 to 253 volts AC / 50 to 60 Hz |
| Nominal battery voltage | 12 volts DC |
| End-of-charging voltage | 14.4 volts DC |
| Float charging voltage | 13.6 volts DC |
| Maximum battery capacity | 100 Ah |
| Charging curve | IU0U |
| Maximum charging current | **10 A** |
| Operating temperature range | –20°C to +50°C |
| Dimensions (W x H x D) | 85 x 50 x 210 mm |
| Weight | approx. 1.0 kg |
| Quality features | Overload and short-circuit protection, Power Factor Correction (PFC) |
| Test mark | CE |

| Product | Ref. No. |
|---|---|
| PerfectCharge IU 1012, 10 A 12 volts | 910-012PFC |

Modified IU0U curve optimised for charging gel, wet and AGM batteries

Quick charging without power fluctuations

Hassle-free operation in a range from 90 to 253 volts, thanks to PFC

Contents, specifications and availability are subject to change serving the technical improvement.

# The professional way of charging

## IU0U automatic chargers for simultaneous charging of several batteries

**The most convenient way to charge your batteries is using the series IU 1512 to IU 4512 WAECO PerfectCharge IU0U charger.**

These units offer the option to set the end-of-charging voltage. And that means: quick and optimum charging for all batteries regardless of the type (wet, gel or AGM). They come with two or three outputs for simultaneous charging of several batteries. You can even charge the starter and the supply battery in one go. When switched to sleep mode the charger works quietly at half of its capacity. For extra convenience you can connect a remote control and a temperature sensor, both available as optional extras.

- **Suitable for all types of lead batteries** (gel, AGM and wet batteries)
- **Adjustable end-of-charging voltage**
- **Simultaneous charging of two or three batteries**
- **Sleep mode** for superbly quiet running at night time
- **Pilot lamps** for functional status indication
- **Temperature sensor** as optional extra
- **Remote control** as optional extra



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectCharge IU 1512 3.16

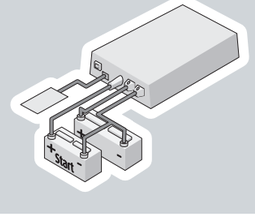
**IU0U automatic charger 15 A 12 volts for mobile use**
Ideal for motorhomes, motor and sailing yachts, ambulance and emergency service vehicles

| | |
|---|---|
| Battery outputs | One plus one 1 A output for starter battery |
| Input voltage range | 207 to 253 volts AC / 50 to 60 Hz |
| End-of-charging voltage | 14.4 / 14.8 volts DC ± 0.05 volts |
| Float charging voltage | 13.8 volts DC ± 0.05 volts |
| Battery capacity | 150 Ah |
| U0 phase limited at | 4 h or 8 h |
| Maximum charging current | **15 A ± 0.5 A** |
| Operating temperature | 0°C to +50°C |
| Dimensions (W x H x D) | 200 x 60 x 260 mm |
| Weight | approx. 2.4 kg |
| Quality features | Overload and short circuit protection, sleep mode |
| Test marks | CE |

| Product | Ref. No. |
|---|---|
| PerfectCharge IU 1512, 15 A 12 volts | 915-012TB |
| **Optional extras:** Remote control | 900-RC |
| Temperature sensor | TF-500 |

- Modified IU0U curve, optimised for charging gel, wet and AGM batteries
- End-of-charging voltage adjustable
- Sleep mode
- Prevents battery overcharging due to limited time of the U0 phase
- Quick charging without power fluctuations
- Remote control and temperature sensor as accessories (p. 135)

230 V › 12 V




### FOR SIMULTANEOUS CHARGING OF 1 BATTERY + STARTER BATTERY

Two in one: the WAECO PerfectCharge IU 1512 battery charger has two outputs. The first one is used to charge the leisure battery with a modified IU0U charging curve. Simultaneously, the starter battery connected to the second output receives a float charge at a current of 1 amp.

The two charging operations proceed separately and do not interfere one another. The starter battery and the leisure battery may be of a different type.

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO PerfectCharge IU 2512 / IU 1524

3.16

**IU0U automatic chargers 25 A/12 volts or 15 A/24 volts for mobile use**
Ideal for motorhomes, motor and sailing yachts, ambulances and emergency service vehicles

| | IU 2512 | IU 1524 |
|---|---|---|
| Battery outputs | Two plus one 1 A output for starter battery | |
| Input voltage range | 207 to 253 volts AC / 50 to 60 Hz | |
| End-of-charging voltage | 14.4 / 14.8 volts DC ± 0.05 V | 28.8 / 29.6 volts DC ± 0.05 V |
| Float charging voltage | 13.8 volts DC ± 0.05 volts | 27.6 volts DC ± 0.05 volts |
| Battery capacity | 300 Ah | 200 Ah |
| U0 phase limited at | 4 h or 8 h | |
| Maximum charging current | **25 A ± 0.5 A** | **15 A ± 0.5 A** |
| Operating temperature | 0°C to +50°C | |
| Dimensions (W x H x D) | 240 x 80 x 310 mm | |
| Weight | approx. 3.5 kg | |
| Quality features | Overload and short circuit protection, sleep mode | |
| Test mark | CE | |

| Products | Ref. No. |
|---|---|
| PerfectCharge IU 2512, 25 A 12 volts | 925-012TC |
| PerfectCharge IU 1524, 15 A 24 volts | 915-024TC |
| **Optional extras:** Remote control | 900-RC |
| Temperature sensor | TF-500 |

Available as 12-volt and 24-volt version

Modified IU0U curve, optimised for charging gel, wet and AGM batteries

End-of-charging voltage adjustable

Sleep mode

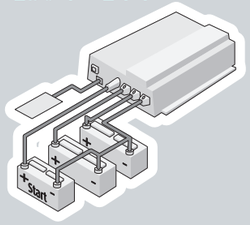
Prevents battery overcharging due to limited time of the U0 phase

Quick charging without power fluctuations

Remote control and temperature sensor as accessories (p. 135)

230 V › 12 V

230 V › 24 V




### FOR SIMULTANEOUS CHARGING OF 2 BATTERIES + STARTER BATTERY

Two chargers in a single cabinet: the WAECO PerfectCharge battery chargers IU 2512 and IU 1524 have three outputs. The first and the second ones can be used to charge leisure batteries with a modified IU0U charging curve. The outputs are separated by diodes, so there can be no charge compensation between the batteries. Simultaneously, the third (separate) output can be used to give the starter battery a float charge at a current of 1 amp.

The two charging operations proceed separately and do not interfere one another. The starter battery and the leisure batteries may be of a different type.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectCharge IU 4512 / IU 2524

3.16

**IU0U automatic chargers 45 A/12 volts or 25 A/24 volts for mobile use**
Ideal for motorhomes, motor and sailing yachts, ambulances and emergency service vehicles

| | IU 4512 | IU 2524 |
|---|---|---|
| Battery outputs | Three | |
| Input voltage range | 207 to 253 volts AC / 50 to 60 Hz | |
| End-of-charging voltage | 14.4 / 14.8 volts DC ± 0.05 V | 28.8 / 29.6 volts DC ± 0.05 V |
| Float charging voltage | 13.8 volts DC ± 0.05 volts | 27.6 volts DC ± 0.05 volts |
| Battery capacity | 500 Ah | 300 Ah |
| U0 phase limited at | 4 h or 8 h | |
| Maximum charging current | **45 A ± 1 A** | **25 A ± 0.5 A** |
| Operating temperature | 0 to +50°C | |
| Dimensions (W x H x D) | 230 x 108 x 325 mm | |
| Weight | approx. 4.2 kg | |
| Quality features | Overload and short circuit protection, sleep mode | |
| Test mark | CE | |

| Products | Ref. No. |
|---|---|
| PerfectCharge IU 4512, 45 A 12 volts | 945-012TC |
| PerfectCharge IU 2524, 25 A 24 volts | 925-024TC |
| **Optional extras:** Remote control | 900-RC |
| Temperature sensor | TF-500 |

Available as 12-volt and 24-volt version

Modified IU0U curve, optimised for charging gel, wet and AGM batteries

End-of-charging voltage adjustable

Sleep mode

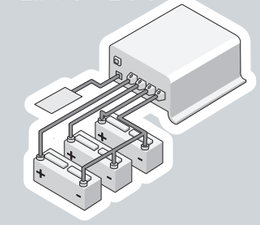
Prevent battery overcharging due to limited time of the U0 phase

Quick charging without power fluctuations

Remote control and temperature sensor as accessories (p. 135)

230 V › 12 V

230 V › 24 V




### FOR SIMULTANEOUS CHARGING OF 3 BATTERIES

Three leisure batteries of the same type charged in one go – it's possible with the triple chargers WAECO PerfectCharge IU 4512 and IU 2524. These units have three outputs, all using a modified IU0U charging curve to make sure the batteries are maintained in optimum condition.

Depending on the capacity, the weaker batteries are charged first. Then all batteries are charged simultaneously at the same rate. The outputs are separated by diodes, so there can be no charge compensation between the batteries.

## WAECO PerfectCharge Accessories

3.16

**Remote control for IU0U automatic chargers**

| | |
|---|---|
| Colour | Black |
| Dimensions (W x H x D) | 65 x 110 x 25 mm (22 mm built-in depth) |
| Quality features | Pilot lamp |
| Scope of delivery | Connection cable, approx. 5 m |

| Product | Ref. No. |
|---|---|
| Remote control | 900-RC |

**Temperature sensor with 5 m supply cable**

The IU0U chargers of series IU 1512 to IU 4512 can be equipped with a temperature sensor available as optional extra. The temperature sensor adjusts the charging voltage to the current battery temperature. This ensures a better charge at cold temperatures and prevents battery gassing at high temperatures.

| Product | Ref. No. |
|---|---|
| Temperature sensor | TF-500 |

Contents, specifications and availability are subject to change serving the technical improvement.

# IU-charging converters

## Full leisure battery recharge on the move

**Many vehicle owners expect the electric generator to completely recharge leisure batteries during the drive.** When the battery is beginning to fail, however, they quickly realise it often doesn´t work that way.

The reason is insufficient cabling (supply cables too long, cross section too small), as frequently encountered in caravans. Electronics specialist WAECO has developed a neat solution for this problem: the **PerfectCharge IU charging converter**, available in **three performance categories.**

**The IU charging converter is simply integrated into the wiring of the starter and leisure batteries. Raising the charging voltage to 14.2 volts, it ensures optimal charging during the drive.**

The converter can be **switched on or off** by an external control signal, e.g. the D+ from the generator. You can also use a 12-volt switch.

Moreover, the charging converter **stabilises the voltage supply**. This makes it ideal for sensitive 12-volt appliances (e.g. navigation systems, LCD monitors), which require a **constant and stable voltage**.

To benefit from the stabilising effect, the IU charging converter is integrated into the supply cord of the consumer. The unit compensates **over- and under-voltage** in a range between 8 and 16 volts, thus preventing failure of or damage to the appliance.



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectCharge DC 08 / DC 20 / DC 40

3.16

DC 08

DC 20

DC 40

**Charging converter and battery charger in three performance categories, 8 A, 20 A and 40 A**

- High energy efficiency
- Electrically isolated output voltage
- Clean output voltage
- Parallel operation possible
- IU battery charging curve
- Additional ON//OFF input
- Stabilises the battery/generator voltage
- Stabilises the onboard power supply during engine start
- EMC optimised for the automotive industry

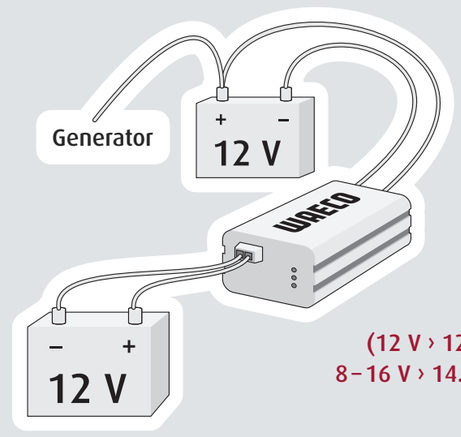
Ideal for **charging** the **leisure battery** while driving

| | DC 08 | DC 20 | DC 40 |
|---|---|---|---|
| Input voltage | 12 volts DC | | |
| Input voltage range | 8 to 16 volts DC | | |
| Output current | **8 A** | **20 A** | **40 A** |
| Output voltage | 14.2 volts DC ± 0.1 volts | | |
| Energy efficiency | Up to 87% | | |
| Ripple & noise | 20 mA | | |
| Dimensions (W x H x D) | 115 x 70 x 100 mm | 115 x 70 x 160 mm | 115 x 70 x 270 mm |
| Weight | 0.75 kg | 1.2 kg | 2.1 kg |
| Quality features | Electrically isolated output voltage, wide input voltage range, high accuracy of the output voltage | | |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) | | |

| Products | | Ref. No. |
|---|---|---|
| PerfectCharge DC 08 | 8 A, 12 volts » 12 volts | DC1212-08 |
| PerfectCharge DC 20 | 20 A, 12 volts » 12 volts | DC1212-20 |
| PerfectCharge DC 40 | 40 A, 12 volts » 12 volts | DC1212-40 |

Gives the battery a full charge while driving

Stable voltage supply for sensitive 12-volt devices




Contents, specifications and availability are subject to change serving the technical improvement.

# 230 volts on board
## Inverters from XS to XXL

**Whether car, motorhome or boat – it makes sense to have a 230-volt socket on board your recreational vehicle.** After all, enjoying your holiday means being able to use the electrical gadgets you are used to. The problem is they work on 230 volts, while your vehicle batteries generate 12 or 24 volts and their capacity is limited. How do you turn 12 or 24 volts direct current into 230 volts alternating current? Quite simply, by using a **WAECO inverter**.

**The WAECO inverter programme is just as varied as the applications they are put to.** It accounts for all your needs – regardless of whether you "just" want a low-priced, compact unit to run your laptop, or a high-performance inverter for your microwave oven or professional coffeemaker.


Contents, specifications and availability are subject to change serving the technical improvement.



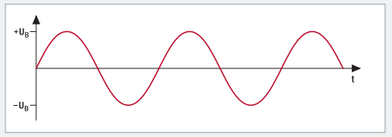
# Inverter or sine wave inverter?

**Which inverter is the right one depends on the type and power rating of the appliance to be connected.** The low-priced **WAECO PerfectPower** inverters generate a sinusoidal output voltage – sufficient for all electrical appliances with a wide input voltage range, such as hair-dryers and vacuum cleaners.

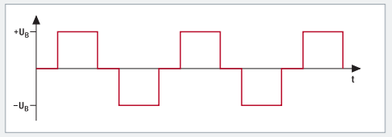
**Sensitive high-tech appliances** with special start-up characteristics require a pure sine wave voltage, just like from the home power socket. Fluctuations in the voltage supply may cause failure or even damage them. **WAECO SinePower** sine wave inverters make sure that won't happen. They deliver a stable 230-volt input voltage, ensuring everything runs smoothly on board.

## Pure or modified sine wave?

### Pure sine wave voltage
The voltage is accurately controlled by a microprocessor.
The result: a clean sine wave voltage, like that from a home power socket
› **WAECO SinePower sine wave inverters (p. 144–147)**




### Modified sine wave voltage
The voltage produces a stair-shaped curve simulating a sine wave.
The result: an output voltage of stable amplitude and frequency
› **WAECO PerfectPower inverters (p. 142–143)**




## ↘ 230 volts in the VW Passat – and in other cars too

**Volkswagen's Passat was the first to have it.** Then it made its entrance into other VW models, the Touareg, Jetta and Golf Plus. Before long, it will be integrated into the Audi A4 as well: a 230-volt Euro-socket generating up to 300 watts alternating current. Its secret is a tailor-made WAECO inverter, backed by a wealth of electronics expertise that convinced decision makers in Wolfsburg and elsewhere ...

Source: Auto-Reporter

Contents, specifications and availability are subject to change serving the technical improvement.

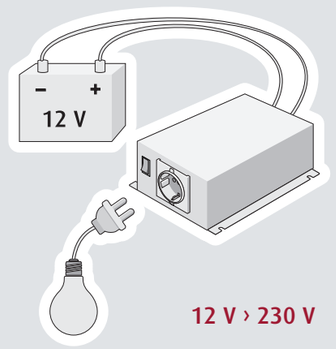
# Decision aid

## Answers to frequently asked questions

The demand for voltage inverters is constantly increasing, and so is our product range. WAECO offers inverters for all applications. But which one is the right one for you? To help you find your way around the WAECO inverter programme, here are answers to the questions most frequently asked by our customers.

## Minimal power requirements for some electric appliances

| Device | Power rating | Quality of the output voltage |
|---|---|---|
| Coffeemaker (filter) | 800 – 1500 watts | modified sine wave voltage |
| Coffeemaker (pads) | 1200 – 1600 watts | pure sine wave voltage |
| Espresso machine | 1200 – 1600 watts | pure sine wave voltage |
| Microwave oven | 1000 – 1600 watts | modified sine wave voltage |
| Toaster | 1000 – 1500 watts | modified sine wave voltage |
| Water kettle | 1000 – 1500 watts | modified sine wave voltage |
| Reading lamp | 50 – 100 watts | modified sine wave voltage |
| Energy-saving bulb | 10 – 20 watts | pure sine wave voltage |
| Fluorescent tube | 50 – 100 watts | pure sine wave voltage |
| Audio/video device | 100 – 200 watts | pure sine wave voltage |
| Notebook computer | 100 – 200 watts | modified sine wave voltage |
| Power drill/circular saw | 500 – 1500 watts | modified sine wave voltage |
| Vacuum cleaner | 1000 – 1600 watts | modified sine wave voltage |
| Electric toothbrush | 50 watts | pure sine wave voltage |






Contents, specifications and availability are subject to change serving the technical improvement.



## How much power does the inverter need to have?

The size of the inverter depends on the application it is being used for. For example, it takes a more powerful inverter to run a coffee-maker than it does to operate a latop. The most power-intensive gadget determines the power rating of the inverter. You should also consider the starting current of the devices. Compressor refrigerators, for instance, can consume up to ten times more than their nominal power consumption.

## WAECO SinePower or PerfectPower – which series is the right one for you?

A **PerfectPower inverter** with sinusoidal output voltage is absolutely fine for many applications. For more power-intensive appliances, you should opt for a **PerfectPower high-performance inverter**. Sensitive high-tech devices place higher demands on the quality of the supply voltage. They require a pure sine wave voltage. In these cases it is absolutely essential to use a **SinePower sine wave inverter**.

Here again, the most demanding electrical appliance determines the choice of the inverter. A single device on board requiring a pure sine wave voltage is reason enough for you to opt for a sine wave inverter.

**Example:**

› The largest electrical appliance on board is a toaster with a wattage of 1200 W.

› The technically most demanding electrical appliance is an electric toothbrush with a wattage of 50 W.

**Our recommendation:**
A sine wave inverter with a capacity of at least 1200 watts

**Alternatively:**
An inverter of at least 1200 watts for the toaster plus a 150-watt sine wave inverter for the toothbrush

## What size battery do I need?

If you expect high performance from your inverter, you will need a high-capacity battery. We recommend a minimum capacity of 15 amp-hours per 100 watts inverter output. This ensures that the large currents can flow without voltage drop, thereby preventing excessive strain on the battery.

It's not only the short-time peak requirements – e.g. that of a micro-wave oven – that count. When calculating the battery capacity don't forget to take all the small electric consumers into account that are switched on for longer periods of time.

Multiply the amperage of every single appliance with the number of hours it is usually switched on. This will give you the approximate battery capacity in amp-hours (Ah). To calculate the total amount drawn from the battery, simply add up the amounts for all electrical appliances and add a generous buffer.

**Example:**

| | | |
|---|---|---|
| Microwave oven (1500 W) | 150 A x 0.1 h = | 15.0 Ah |
| Lamp | 15 A x 2.5 h = | 37.5 Ah |
| TV set | 3 A x 2.0 h = | 6.0 Ah |
| ... | | ... |
| ... | | ... |
| Total capacity drawn | | 58.5 Ah |

**Our recommendation:**
A battery with a capacity of 200 Ah, 30% of which would be utilised on a daily basis in our example.

Contents, specifications and availability are subject to change serving the technical improvement.

PerfectPower at a **power price**

# PerfectPower inverters

## 230 volts for everything you'd like to have on board

**WAECO PerfectPower inverters** generate 230 volts alternating current from 12 or 24 volt battery current. Due to their well proven reliability, they have become a firm part of many onboard systems. The range includes five versions in different capacities to suit the majority of commonly used 230-volt appliances. For mobile use of especially powerful electrical appliances, such as microwave ovens, toasters and vacuum cleaners, we recommend a **WAECO PerfectPower high-performance inverter** with integrated mains priority circuit.

### With integrated priority circuit for 230 volts

**This technical extra was integrated in WAECO PerfectPower high-performance inverters to save the vehicle battery.** Here's how it works: if the inverter can choose between an external power supply and the onboard battery – e. g. at a campsite – it will always give priority to the external power source to generate the required 230 V voltage. No more bothersome plugging and unplugging; the battery is only used when an external power supply is unavailable.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectPower PP 150 / PP 300 / PP 500 3.18

PP 150

PP 300

PP 500

**Inverters turn 12/24 volts battery voltage into 230 volts AC.**

| | PP 150 | PP 300 | PP 500 |
|---|---|---|---|
| Input voltage | 12 volts DC (10 to 15 volts) or 24 volts DC (20 to 30 volts) | | |
| Output voltage/curve | 210 to 230 volts AC/modified sine wave | | |
| Output frequency | 50 Hz | | |
| No-load current input | < 0.15 A | < 0.20 A | < 0.25 A |
| Continuous power (30 min) | **150 watts** | **300 watts** | **500 watts** |
| Peak power | 300 watts | 600 watts | 1000 watts |
| Efficiency | Up to 90% | Up to 90% | Up to 90% |
| Dimensions (W x H x D) | 105 x 57 x 140 mm | 105 x 57 x 165 mm | 105 x 57 x 225 mm |
| Weight | approx. 0.6 kg | approx. 0.7 kg | approx. 1.1 kg |
| Quality features | Electronic overload and short circuit protection, over-voltage and low-voltage cut-off, automatic reverse pole protection, overheat cut-off | | |
| Test marks | GS, e-approved to 95/54/EC (EMC guidelines for vehicles), EN 60950 | | |

| Products | | Ref. No. |
|---|---|---|
| PerfectPower PP 150 | 150 watts, 12 volts | 815-012PP/S |
| PerfectPower PP 150 | 150 watts, 24 volts | 815-024PP/S |
| PerfectPower PP 300 | 300 watts, 12 volts | 830-012PP/S |
| PerfectPower PP 300 | 300 watts, 24 volts | 830-024PP/S |
| PerfectPower PP 500 | 500 watts, 12 volts | 840-012PP/S |
| PerfectPower PP 500 | 500 watts, 24 volts | 840-024PP/S |

230 volts on board

Also suitable for inductive or sensitive appliances

Safe, compact, inexpensive

## WAECO PerfectPower PP 1000 / PP 2000 3.18

PP 1000

PP 2000

Remote control

**High-performance inverters with integrated mains priority circuit.**
**Turn 12/24 volts battery voltage into 230 volts AC.**

The integrated mains priority circuit saves the vehicle battery. As soon as an external power source is applied, e. g. at a campsite, the inverter generates 230 volts from the mains, and not from the battery.

| | PP 1000 12 Volt | PP 2000 12 Volt | PP 1000 24 Volt | PP 2000 24 Volt |
|---|---|---|---|---|
| Input voltage | 12 volts DC ( 11 to 15 volts) | | 24 volts DC ( 22 to 30 volts) | |
| Output voltage/curve | 210 to 230 volts AC/modified sine wave | | | |
| Output frequency | 50 Hz ± 2 Hz | | | |
| No-load current input | < 0.6 A | < 0.8 A | < 0.4 A | < 0.6 A |
| Continuous power (30 min) | **1000 watts** | **2000 watts** | **1000 watts** | **2000 watts** |
| Peak power | 1600 watts | 3200 watts | 1600 watts | 3200 watts |
| Cooling | Built-in fan | | | |
| Efficiency | Up to 87% | | | |
| Mains priority | Integrated | | | |
| Mains input voltage | 230 volts AC, 10 A | | | |
| Remote control | Included in the delivery kit, supplied with 5 m connection cable | | | |
| Dimensions (W x H x D) mm | 210 x 77 x 300 | 210 x 77 x 410 | 210 x 77 x 300 | 210 x 77 x 410 |
| Weight | approx. 4.0 kg | approx. 6.0 kg | approx. 4.0 kg | approx. 6.0 kg |
| Quality features | Electronic overload and short circuit protection, over-voltage and low-voltage cut-off, automatic reverse pole protection, overheat cut-off, priority circuit for mains operation, remote control | | | |
| Test marks | e-approved to 95/54/EC (EMC guidelines for vehicles), EN 60950 | | | |

| Products | | Ref. No. |
|---|---|---|
| PerfectPower PP 1000 | 1000 watts, 12 volts | 8100-012VS |
| PerfectPower PP 1000 | 1000 watts, 24 volts | 8100-024VS |
| PerfectPower PP 2000 | 2000 watts, 12 volts | 8200-012VS |
| PerfectPower PP 2000 | 2000 watts, 24 volts | 8200-024VS |

**With integrated mains priority circuit**

Remote control included with each unit

230 volts for especially powerful consumers

Suitable for stationary use with mains installation

Contents, specifications and availability are subject to change serving the technical improvement.

# Sine wave inverters

230 volts on the road – just like from the power socket

Contents, specifications and availability are subject to change serving the technical improvement.

# Sine wave inverters and accessories

Tailor-made solutions for all applications

**WAECO sine wave inverters** generate a pure sine wave alternating current from a 12- or 24-volt battery current.

They are especially suited for electrical **appliances that are sensitive to fluctuations in the onboard power supply**, and also for power-intensive appliances.

**The latest SinePower generation, with models providing a continuous power from 700 watts up, meets industry standards and was designed for the very highest demands.** Due to the use of special materials, these units are amazingly lightweight. The 1500-watt sine wave inverter, for instance, weighs just 4800 g. In addition, the inverters feature an **energy saving mode** that automatically switches the units to “low power” as soon as there are no 230-volt appliances being operated.

Sine wave inverters are permanently connected to the battery. For extra comfort and convenience, a **remote control** (p. 147) is available as optional extra.

Battery-friendly power supply is ensured by the VS-230 mains priority circuit, yet another optional extra useful to have (p. 147).

WAECO inverters generate 230 volts:

Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO SinePower SP 162 / SP 164 / SP 352 / SP 354 — 3.30

SP 162

SP 354

**Sine wave inverters turn 12/24 volts battery voltage into pure 230 volts AC.** The **light-weight, compact and inexpensive 150- or 350-watt inverters** are perfectly sufficient for most commonly used high-tech appliances. They are easily accommodated – even where space is limited. Both model ranges feature an output for connection of an external ON/OFF switch.

| | SP 162 / SP 164 | SP 352 / SP 354 |
|---|---|---|
| Input voltage | 12 volts DC (10.5 to 15 volts) or 24 volts DC (21 to 30 volts) | |
| Output voltage/curve | 230 volts AC/sine wave ∿ | |
| Output frequency | 50 Hz | 50 Hz |
| No-load current input | 12 volts: 1.2 A/24 volts: 0.6 A | 12 volts: 1.2 A/24 volts: 0.6 A |
| Continuous power (30 min.) | **150 watts** | **350 watts** |
| Peak power | 300 watts | 700 watts |
| Efficiency | Up to 90% | Up to 90% |
| Dimensions (W x H x D) | 147 x 60 x 185 mm | 147 x 60 x 185 mm |
| Weight | approx. 1.2 kg | approx. 1.4 kg |
| Quality features | Electronic overload and short circuit protection, over-voltage and low-voltage cut-off, reverse pole protection by fuse, can be switched on or off by external switch | |
| Test marks | e-approved according to 95/94/EC (EMC guidelines for vehicles), CE, EN 60950-1 | |

| Products | | Ref. No. |
|---|---|---|
| SinePower SP 162 | 150 watts 12 volts | MSK160-012 |
| SinePower SP 164 | 150 watts 24 volts | MSK160-024 |
| SinePower SP 352 | 350 watts 12 volts | MSK350-012 |
| SinePower SP 354 | 350 watts 24 volts | MSK350-024 |

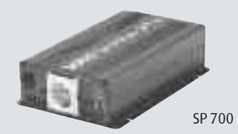
Ideal for low-power electrical appliances, such as laptops, TVs, satellite units, DVDs, VCRs

Turn 12 or 24 V battery voltage into pure 230 V AC

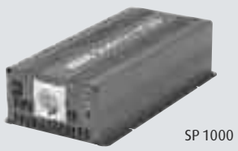
Output for connection of an external ON/OFF switch

Yacht ★★★★★
Excellent
Test 6/2007

## WAECO SinePower SP 700 / SP 1000 / SP 1500 / SP 2000 / SP 3000 — 3.30



SP 700



SP 1000

SP 3000

**Sine wave inverters turn 12/24 volts battery voltage into pure 230 volts AC.**
**Premium models for ultimate demands:** these industry-standard inverters offer continuous power rates to suit even professional demands. **The** series for large motorhomes, yachts and buses.
Remote control as optional accessory.

| | SP 700 | SP 1000 | SP 1500 | SP 2000 | SP 3000 |
|---|---|---|---|---|---|
| Input voltage | 12 volts DC (11 to 15 volts) or 24 volts DC (22 to 30 volts) | | | | |
| Output voltage/curve | 230 volts AC/sine wave ∿ | | | | |
| Output frequency | 50 Hz | | | | |
| Input current standby | 0.25/0.15 A | 0.25/0.15 A | 0.28/0.15 A | 0.5/0.25 A | 0.55/0.35 A |
| Continuous power (30 min.) | **700 watts** | **1000 watts** | **1500 watts** | **2000 watts** | **3000 watts** |
| Spitzenleistung | 1200 watts | 2000 watts | 3000 watts | 4000 watts | 6000 watts |
| Efficiency up to | 91%/93% | 91%/94% | 91%/93% | 91%/93% | 90%/93% |
| Dimensions (W x H x D mm) | 180 x 72 x 295 | 182 x 88 x 383 | 191 x 88 x 415 | 208 x 160 x 422 | 208 x 166 x 452 |
| Weight approx. | 2.7 kg | 4.0 kg | 4.8 kg | 9.0 kg | 9.8 kg |
| Qualitätsmerkmale | Electronic overload and short circuit protection, over-voltage and low-voltage cut-off, automatic reverse pole protection, overheat cut-off, status indicated by three-colour LED, microprocessor controlled output voltage. **Sleep mode:** To prevent unnecessary strain on the vehicle battery, the sine wave inverters are equipped with a power-save mode. This mode is automatically activated as soon as there are no 230-volt consumers being operated. | | | | |
| Material | Anodised aluminium housing | | | | |
| Test marks | e-approved to 95/54/EC (EMC guidelines for vehicles), EN 60950 | | | | |

| Products | | Ref. No. |
|---|---|---|
| SinePower SP 700 | 700 watts 12 volts | MSK700-012 |
| SinePower SP 700 | 700 watts 24 volts | MSK700-024 |
| SinePower SP 1000 | 1000 watts 12 volts | MSK1000-012 |
| SinePower SP 1000 | 1000 watts 24 volts | MSK1000-024 |
| SinePower SP 1500 | 1500 watts 12 volts | MSK1500-012 (no photo) |
| SinePower SP 1500 | 1500 watts 24 volts | MSK1500-024 (no photo) |
| SinePower SP 2000 | 2000 watts 12 volts | MSK2000-012 (no photo) |
| SinePower SP 2000 | 2000 watts 24 volts | MSK2000-024 (no photo) |
| SinePower SP 3000 | 3000 watts 12 volts | MSK3000-012 |
| SinePower SP 3000 | 3000 watts 24 volts | MSK3000-024 |

Ideal for powerful appliances such as microwave ovens and professional coffeemakers

SP 2000 and SP 3000 with additional 230-volt output for terminal connections

2000- and 3000 watt models specifically designed for professional use



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO SinePower Accessory — 3.30

MCR-8

MCR-6

**Remote control for sine wave inverters SP 700 to SP 3000**

**Superbly served – with two models to choose from**
The sine wave inverters SP 700 to SP 3000 can be complemented with the MCR-6 or MCR-8 remote controls to suit different convenience requirements. The MCR-8 enables basic inverter ON/OFF functionality, while the MCR-6 offers the additional benefits of LED indication for all relevant system information. Both remote controls are suitable for switchboard mounting.

| | MCR-6 | MCR-8 |
|---|---|---|
| Dimensions (W x H x D) | 130 x 120 x 25 mm | 58 x 72 x 28 mm |
| Weight | 400 g | 40 g |
| Cable length | 7.5 m | 7.5 m |
| Quality features | Low-voltage, over-voltage, overheat and overload indicated by red LED, stand-by and power on indicated by green LED | Power on indicated by red LED |

| Products | Ref. No. |
|---|---|
| Comfort remote control for SP 700 – SP 3000 | MCR-6 |
| Standard remote control for SP 700 – SP 3000 | MCR-8 |

Two models to choose from

## WAECO PerfectPower Accessory — 3.30

**The VS-230 mains priority circuit was designed for voltage management in vehicles with two optional power supplies.**

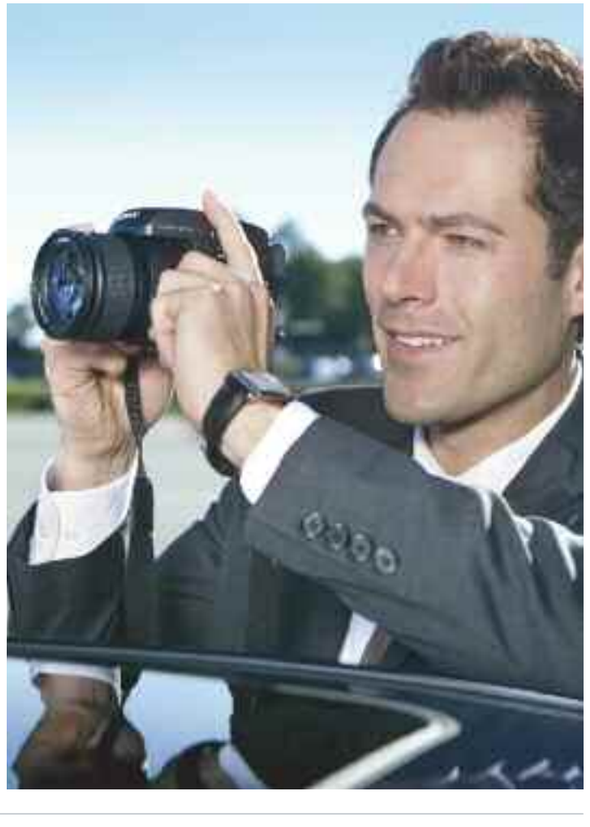
If an appliance is connected to two 230-volt power sources – a mains power source and an inverter that draws power from the vehicle battery – priority is given to the mains power source. This prevents unnecessary use of limited battery power. The priority circuit is suitable for **all** inverters with a capacity up to 2300 watts – including those already in use.

| | |
|---|---|
| Input voltage | 230 volts AC |
| Output voltage | 230 volts AC |
| Output frequency | 50 Hz |
| Continuous power | 10 A |
| Maximum output | 2300 watts |
| Dimensions (W x H x D) | 190 x 80 x 80 mm |

| Product | Ref. No. |
|---|---|
| Mains priority circuit for WAECO inverters | VS-230 |

For all inverters up to 2300 watts

Contents, specifications and availability are subject to change serving the technical improvement.



# Mobile inverter in pocket-size format

## WAECO PocketPower SI 100

**Sales representatives, craftsmen, technical service crews – more and more business travellers rely on their laptop computer** as a practical tool to access information, key-in important data, or prepare for the next customer meeting.

Laptop computers work on limited battery power. So they might let you down when you need them most – just because you forgot to recharge the battery when you had the chance.

Battery troubles are now a thing of the past, thanks to WAECO PocketPower SI 100 smart inverter. Plugged into the cigarette lighter socket, it draws power from the 12-volt vehicle battery to ensure impeccable operation of your laptop computer anytime.

WAECO inverters generate 230 volts:

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PocketPower SI 100

3.29

**Smart inverter for mobile use.**
**Turns 12 volts battery voltage into 230 volts AC.**

- Light-weight, small, handy
- For operation of notebook computers and other low-power appliances
- Low-voltage and over-voltage cut-off
- Overheat cut-off
- Reverse-pole protection with fuse
- Fan cooling

| | |
|---|---|
| Input voltage | 12 volts DC (10 to 15 volts) |
| Output voltage/curve | 210 to 230 volts AC / modified sine wave |
| Output frequency | 50 Hz ±2 Hz |
| No-load current input | < 0.1 A |
| Continuous power | **110 watts** |
| Peak power | 200 watts |
| Low-voltage cut-off | 10 volts |
| Cooling | Built-in fan |
| Energy efficiency | Up to 90% |
| Dimensions (W x H x D) | 42 x 70 x 130 mm |
| Weight | 340 g |
| Test marks | e-approved to 95/54/EC (EMC guidelines for vehicles), EN 60950 |

| Product | Ref. No. |
|---|---|
| PocketPower SI 100, 110 watts, 12 volts | MSI-100-12 |

Ideal for mobile operation of laptop computers

Light-weight and compact

Smart features – small price!

### Low-priced and handy

The PocketPower SI 100 smart inverter makes sure you can always rely on your laptop computer while on the move. You can also use the tried and tested inverters from the PerfectPower series, which are more powerful, so larger and heavier – this also means they cost more.

Light-weight and super-compact, the PocketPower SI 100 is easily accommodated in the laptop case and takes up very little space in your vehicle. It supplies a continuous power of 110 watts – perfectly sufficient for laptop operation. The truly affordable price shows that useful equipment doesn't have to be expensive.

Contents, specifications and availability are subject to change serving the technical improvement.

Ideal for sensitive electronic devices

# Voltage converters for universal use

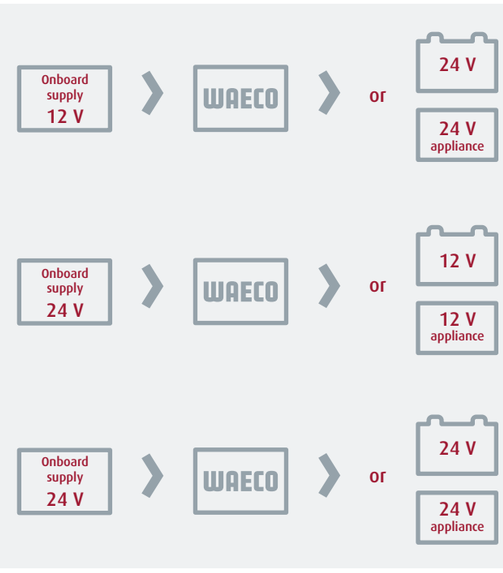
## The perfect link between on-board battery and appliance

**They combine what was never intended to be combined. If the 12-volt navigation system is powered by the 24-volt board battery and the 24-volt fleet management computer easily copes with a 12-volt supply, there's bound to be a PerfectPower voltage converter somewhere along the line.**

In these units, the input voltage is electrically isolated from the output voltage to compensate for under- and overvoltage on the input side.

Due to this feature, the voltage converters meet the highest demands for **voltage stability** and **operating safety**. This makes them ideal for sensitive appliances or use in safety conscious areas, e.g. hazardous goods transport.

PerfectPower voltage converters have an electronically regulated output voltage, to which they owe their **extra function as a high quality IU charger**. Moreover, several converters **can be used in parallel**.

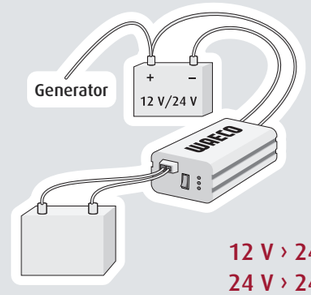





Contents, specifications and availability are subject to change serving the technical improvement.



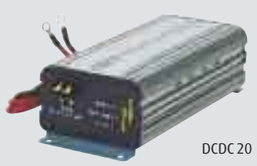
- **For appliances requiring a stable voltage supply**
- **Ideal for larger motorhomes, vans and yachts with 12- or 24-volt starter battery and 12- or 24-volt supply battery**



## WAECO PerfectPower DCDC 10 / DCDC 20 / DCDC 40 3.18

**Voltage converters 10, 20 or 40 A**
- High energy efficiency
- Electrically isolated output voltage
- Clean output voltage
- Parallel operation possible
- IU battery charging curve
- Additional ON/OFF input
- Stabilises the battery/generator voltage
- Stabilises the onboard power supply during engine start
- EMC optimised for the automotive industry

DCDC 10

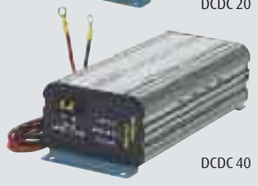

DCDC 20

| 12 volts » 24 volts | DCDC 10 | DCDC 20 |
|---|---|---|
| Nominal input voltage | 12 volts DC | 12 volts DC |
| Input voltage range | 8 to 16 volts DC | 8 to 16 volts DC |
| Output current | 10 A | 20 A |
| Output voltage | 27.6 ± 0.1 volts | 27.6 ± 0.1 volts |
| Energy efficiency | 87% | 87% |
| Ripple & noise | 40 mA | 40 mA |
| Dimensions (W x H x D) | 115 x 70 x 140 mm | 115 x 70 x 240 mm |
| Weight | 1.0 kg | 1.9 kg |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) | |
| **Products** | **Ref. No.** | |
| PerfectPower DCDC 10 10 A 12 volts ›› 24 volts | DC1224-10 | |
| PerfectPower DCDC 20 20 A 12 volts ›› 24 volts | DC1224-20 | |

DCDC 10

| 24 volts » 24 volts | DCDC 10 |
|---|---|
| Nominal input voltage | 24 volts DC |
| Input voltage range | 20 to 32 volts DC |
| Output current | 10 A |
| Output voltage | 27.6 ± 0.1 volts |
| Energy efficiency | 87% |
| Ripple & noise | 40 mA |
| Dimensions (W x H x D) | 115 x 70 x 140 mm |
| Weight | 1.0 kg |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) |
| **Product** | **Ref. No.** |
| PerfectPower DCDC 10 10 A 24 volts ›› 24 volts | DC2424-10 |

DCDC 20


DCDC 40

| 24 volts » 12 volts | DCDC 20 | DCDC 40 |
|---|---|---|
| Nominal input voltage | 24 volts DC | 24 volts DC |
| Input voltage range | 20 to 32 volts DC | 20 to 32 volts DC |
| Output current | 20 A | 40 A |
| Output voltage | 13.8 ± 0.1 volts | 13.8 ± 0.1 volts |
| Energy efficiency | 87% | 87% |
| Ripple & noise | 20 mA | 20 mA |
| Dimensions (W x H x D) | 115 x 70 x 140 mm | 115 x 70 x 240 mm |
| Weight | 1.0 kg | 1.9 kg |
| Test mark | e-approved to 95/54/EC (EMC guidelines for vehicles) | |
| **Products** | **Ref. No.** | |
| PerfectPower DCDC 20 20 A 24 volts ›› 12 volts | DC2412-20 | |
| PerfectPower DCDC 40 40 A 24 volts ›› 12 volts | DC2412-40 | |

Ideal for sensitive appliances

Can also be used as battery charger

Several converters can be used in parallel

Contents, specifications and availability are subject to change serving the technical improvement.

# Battery-operated wet-and-dry vacuum cleaner

## Get rid of that dirt!

**The handy vacuum cleaner comes complete with integrated battery – no need for an external power supply.** And it's strong enough to get rid of the most ground in dirt. Even liquids are no problem for the combined wet-and-dry cleaner. It doesn't require much room for storage, either: small and compact, the handy gadget slots into the boot or vehicle interior, the garage or the storeroom.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PowerVac PV 100

3.31

**Wet/dry vacuum cleaner with 12-volt rechargeable battery**

- Handy, battery-powered vacuum cleaner for mobile use in cars, motorhomes, caravans, boats and home
- Maximum mobility with rechargeable 12-volt battery
- Can be recharged from 12 and 230 volts
- Easy-to-clean dust container and fabric filter
- Cleaning power: 400 mm water column

| | |
|---|---|
| Motor | 12 volts DC, 28,000 rpm |
| Battery | 12 volts DC, 2.6 Ah |
| Operating time | approx. 18 min ±10% |
| Charging time | 10 to 14 h (automatic cut-off) |
| Capacity | 3.8 litres |
| Power consumption | approx. 90 watts |
| Cleaning power | approx. 400 mm water column (±10%) |
| Operating temperature | 0°C to +40°C |
| Material | Handle: ABS<br>Filter: polyester<br>Dust container: PP |
| Dimensions (W x H x D) | 270 x 320 x 198 mm |
| Weight | 2150 g |

**Scope of delivery:**
Vacuum cleaner, hose, attachments for upholstery, rugs and narrow gaps, carrying strap, mains adapter, 12-volt charging cable, operating instructions

| Product | Ref. No. |
|---|---|
| PowerVac PV 100 | PV-100 |

AUTO STRASSENVERKEHR TEST RESULT EXCELLENT

pro mobil TESTED

### Perfect cleaning performance!

**The WAECO PowerVac battery gives you 18 minutes of uninterrupted operation.** Then it's time to connect it to the mains for recharging. Using the connection that is part of the set, recharging takes between 10 and 14 hours. The process is electronically controlled and completed to prevent overcharging. The vacuum cleaner comes with a 3.8 litre dust container and reusable fabric filter, both of which are simply taken off for emptying and cleaning.

### Top cleaning power – minimal power consumption

What many of us don't know is that you can't judge a vac's cleaning power by its watt rating alone. Much more relevant is the generated under-pressure measured in millimetres of water column. This is where the PowerVac scores excellent results. Compared with a 1200-watt high-tech vacuum cleaner, which generates about 1,500 mm of water column, the battery vac achieves a proud 400 mm at a modest power consumption of 90 watts!

## A clean solution, perfect down to the last detail

Extendible crevice nozzle for narrow gaps

Brush attachment for doormats, rugs and upholstery

Easy cleaning thanks to detachable dust container and fabric filter

Attachment for narrow gaps

Contents, specifications and availability are subject to change serving the technical improvement.

# › Reversing video systems and console


| | | |
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| WAECO PerfectView | CRT reversing video systems | 158 › 161 |
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| WAECO MagicWatch | Parking aid with video input | 172 › 173 |
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| WAECO PerfectFit | Monitor consoles | 176 › 177 |
| WAECO PerfectFit | Navigation consoles | 178 › 179 |

# Reversing video systems
## for recreational vehicles

**Drivers of motorhomes and caravans enjoy the privilege of endless mobility and flexibility. When it comes to reversing, they are faced with all the typical risks. Whether in tight parking spaces or on difficult terrain, reversing always involves the chance of damaging one's own vehicle or other property.**

That kind of holiday souvenir often entails enormous repair costs, or worse, third party claims. Even minor bumps can cause lots of damage and trouble.

With a WAECO PerfectView reversing video system you will face all reversing manoeuvres far better equipped. With the monitor on the dashboard and the camera at the back of your vehicle, you have everything in sight with comfortable viewing angles of about 100 degrees horizontally and up to 75 degrees vertically. Depending on the camera position, you will get up to 80 per cent more view compared to the conventional rear- and outside mirror system.

Depending on the technology of your reversing video system, the monitor delivers pictures in black/white or in colour; the camera comes with integrated heater and/or sunshield, or with a motor-operated automatic shutter to prevent soiling of the camera lens.



Contents, specifications and availability are subject to change serving the technical improvement.




**WAECO PerfectView CRT** — CRT reversing video systems

**Reversing video systems tried and tested in thousands of applications**. With CRT (cathode-ray tube) monitors designed for mobile use. Wide choice of b/w cameras, e.g. with motor-operated shutter. WAECO PerfectView CRT systems – great performance at a small price!

**Pages 158 – 161**

**WAECO PerfectView LCD** — LCD reversing video systems

**Flat, space saving LCD monitors and high-performance camera technology.** Colour and b/w systems, cameras with motor-operated shutter or special infra-red lighting for enhanced night-time vision. Video/audio input for connection of entertainment products. WAECO PerfectView LCD systems – advanced technology for demanding people.

**Pages 162 – 171**

**WAECO MagicWatch MWE 850RV** — Parking aid with video input

**A parking aid with active safety features, coupled with the option of adding passive safety through a reversing video system** – that should keep you safe and secure! Two high-quality LCD reversing video systems available as "combination partners".

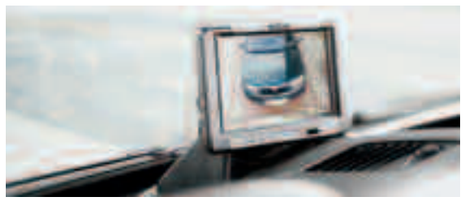
**Pages 172 – 173**

**WAECO PerfectView** — Cameras for navigation systems

**Cameras for navigation systems with monitor**. Four well-proven WAECO PerfectView camera models, ready for connection to permanently fitted navigation systems with monitor. WAECO PerfectView reversing cameras – the elegant way to combine navigation and safe reversing.

**Pages 174 – 175**

**WAECO PerfectFit** — Monitor and navigation console



**The ideal mounting platform for monitors or navigation devices in vehicles**. Also suitable for large and heavy monitors. All essential operating elements stay with in easy reach – making them both very neat and very safe. WAECO PerfectFit consoles are tailor-made for specific vehicles. Easy installation (no need to drill holes), 100% clean dismantling.

**Pages 176 – 179**


Contents, specifications and availability are subject to change serving the technical improvement.

# Safe manoeuvring at an entry-level price

## Basic system with all the essential standard functions

The **PerfectView CRT245** reversing video system offers all the essential basic functions at **price/performance ratio** that is unsurpassed in the market. This very successful product is perfect for motorhome and caravan enthusiasts seeking a safe and comfortable solution that won't strain their holiday budget.

PerfectView CRT245 is a cost-effective system that pays for itself with the first bump you avoid. Not to mention the fun and convenience it provides ...

The unit switches on automatically **as soon as reverse gear is engaged**, but it can also be activated manually.

The WAECO PerfectView CRT245 is ready for connection to **12 or 24 volts**.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView CRT 245 — 3.19

**Reversing video system with 4.5" CRT monitor and b/w camera**
Basic system with all standard functions

**4.5" b/w CRT monitor M 45R**
- Switches on automatically
- Automatic day/night adjustment
- Real-view or mirrored picture function via monitor
- 1 camera input
- Anti-dazzle sunshield
- Distance marks on adhesive film

**b/w universal camera CAM 19**
- Weather-proof aluminium housing
- Electronic brightness adjustment (AGC automatic gain control)

| Technical data | M 45R |
|---|---|
| Dimensions (WxHxD) | 160 x 140 x 156 mm (incl. mount) |
| Diagonal screen dimension | 4.5"/115 mm (visible picture) |
| Operating voltage | 12 to 24 volts DC |
| Power input | 10 watts |
| Resolution | 350 lines |
| Video standard | CCIR |
| Operating temperature | –20°C to +60°C |
| Vibration resistance | 5 g |
| Weight | 1000 g |
| Mirrored picture function | via monitor |

| Technical data | CAM 19 |
|---|---|
| Dimensions (WxHxD) | 115 x 68 x 78 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/4" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 250,000 pixels |
| Picture angle | h: approx. 98° v: approx. 82° |
| Light sensitivity | < 2 lux |
| Video standard | CCIR |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 10 g |
| Type of protection | Equivalent to IP 65 |

**Scope of delivery:**
4.5" b/w CRT monitor, b/w universal camera, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components, anti-dazzle sunshield

| Product | Ref. No. |
|---|---|
| PerfectView CRT 245 | RV-245 |

Monitor 4,5" | Camera b/w

E 13

Compact CRT monitor

Outstanding price/performance ratio

## Fitted in a trice – no bothersome cable laying!

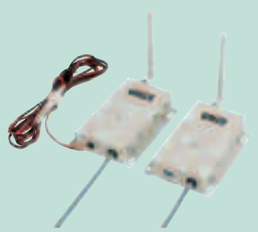
The most common way to connect a camera to a monitor is to lay several metres of cable through the vehicle interior. Depending on the type of vehicle you have, this can be quite a job.

**WAECO offers a fast and simple alternative: the PerfectView RV-FM-10 radio module**. It works perfectly with the PerfectView CRT245 reversing video system.

The radio module is supplied with power via the monitor or the reversing light. Its excellent transmission performance ensures impeccable picture and sound quality in virtually all situations. Should interference occur, simply readjust the antenna.

## Accessories for PerfectView CRT 245

### WAECO PerfectView Accessories — 3.19



**Radio module for reversing video systems**
For fast and easy wireless installation
- Voltage supply: 12 to 15 volts
- 1 camera input
- 1 radio channel
- 20 m reach, depending on the installation

**Scope of delivery:**
Transmitter/receiver unit, installation and operating instructions

| Product | Ref. No. |
|---|---|
| Radio module | RV-FM-10 |

e24

CE 0682

Fast and easy wireless installation

**Extension cables between connection cable and monitor**
With 5-pole DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre extension cable | RV-405 |
| 10-metre extension cable | RV-410 |
| 15-metre extension cable | RV-415 |

Contents, specifications and availability are subject to change serving the technical improvement.

# For safety-conscious people

## The tried and tested system with motor-operated camera shutter

The **motor-operated camera shutter** (included in the delivery kit) protects the camera lens from dirt and damage, which ensures perfect rear view visibility at all times. With a **comfortable picture angle of 140°**, the **wide-angle camera lens** keeps everything in sight – even on larger vehicles.

The **integrated heater** prevents misting of the camera lens and ensures fast picture build-up at low outside temperatures. The reversing video system is activated either manually or when reverse gear is engaged.

WAECO PerfectView CRT100 is ready for connection to **12 or 24 volts.**

**Camera with motor-operated shutter**

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView CRT 100 3.19

**Reversing video system with 5" CRT monitor and b/w shutter camera**
The tried and tested system for safety-conscious people
Camera with motor-operated shutter and heated electronics

**5" b/w CRT monitor M 50R1**
- For 12 volt and 24 volt operating voltage
- Mirrored or real-view camera picture via monitor
- Two camera sockets (EIA)
- Day/night adjustment of picture brightness, automatically or manually
- Switches on automatically or by manual operation
- Contrast/brightness adjustment

| Technical data | M 50R1 |
|---|---|
| Dimensions (WxHxD) | 187 x 163 x 201 mm (incl. mount) |
| Diagonal screen dimension | 5"/128 mm (visible picture) |
| Operating voltage | 11 to 32 volts DC |
| Power input | 12 watts |
| Resolution | 520 lines |
| Video standard | EIA |
| Operating temperature | –20°C to +60°C |
| Vibration resistance | 4 g |
| Weight | 1300 g |
| Mirrored picture function | via monitor |

**b/w shutter camera CAM 20**
- Anodised and powder-coated aluminium housing with protective cap and mount in stainless steel
- Automatic, motor-operated shutter to prevent soiling of the camera lens
- Integrated heater
- Electronic brightness adjustment
- Wide-angle lens with large picture angle (140° diagonal)

| Technical data | CAM 20 |
|---|---|
| Dimensions (WxHxD) | 125 x 80 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | 140° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 100° v: approx. 75° |
| Light sensitivity | < 1 lux |
| Video standard | EIA |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:** 5" b/w CRT monitor, b/w shutter camera, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components, anti-dazzle sunshield

| Product | Ref. No. |
|---|---|
| PerfectView CRT 100 | RV-100 |

Monitor 5" | Camera b/w | E4

2 camera inputs

b/w camera with heated electronics and motor-operated shutter

140° aperture angle

# Single components and accessories for PerfectView CRT 100

## WAECO PerfectView CAM 20 3.19

**b/w shutter camera for CRT systems**
For connection to CRT 100 system; for technical data, see description of CRT 100 system

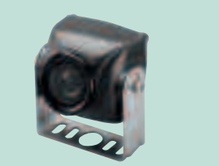
**Scope of delivery:** b/w shutter camera, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 20 | RV-20 |

Camera b/w | E4

Camera with motor-operated shutter

## WAECO PerfectView CAM 22 3.19



**b/w camera universal camera for CRT systems**
- Robust, weather-resistant plastic housing with compact outside dimensions
- Electronic brightness adjustment
- Wide-angle lens with 120° picture angle (diagonal)
- Lens cover of scratch-resistant glass

**Scope of delivery:** b/w universal camera, 20 m monitor-to-camera connection cable, installation fittings for all components

| Technical data | CAM 22 |
|---|---|
| Dimensions (WxHxD) | 76 x 60 x 78 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 90° v: approx. 70° |
| Light sensitivity | < 2 lux |
| Video standard | EIA |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 65 |

| Product | Ref. No. |
|---|---|
| PerfectView CAM 22 | RV-22 |

Camera b/w | E4

lens cover of scratch-resistant glass

## WAECO PerfectView Accessory 3.19

**Extension cables between connection cable and monitor**
With 5-pole DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre extension cable | RV-405 |
| 10-metre extension cable | RV-410 |
| 15-metre extension cable | RV-415 |

Contents, specifications and availability are subject to change serving the technical improvement.

# The LCD class – at affordable entry-level prices

## Colour system with LED support

**Reversing is easy with the PerfectView LCD250 system**. This basic package offers amazing value for money: a new, even more compact **colour camera with a high-quality SONY picture sensor** and a 5" TFT colour monitor that provides excellent image quality, even in the dark. The system switches on automatically when reverse gear is engaged, and can also be activated manually. The camera has an integrated microphone, which can be used to give instructions to the driver from the outside – audible to the driver via the monitor's loudspeaker. An **additional video input** is available for connection of a DVD player, for example.

PerfectView LCD250 is easy to install, the flat LCD monitor takes up very little space.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView LCD 250 3.19

**Reversing video system with 5" LCD monitor and colour universal camera**
Colour system with LED support

**5" LCD colour monitor M 49L**
- Switches on automatically
- Day/night adjustment
- Real-view or mirrored picture function via monitor
- 235,000 pixels
- 2 camera inputs
- Anti-dazzle sunshield
- Loudspeaker

| Technical data | M 49L |
|---|---|
| Dimensions (WxHxD) | 142 x 108 x 32 mm (incl. mount) |
| Diagonal screen dimension | 5"/128 mm (visible picture) |
| Operating voltage | 12 to 15 volts DC |
| Power input | 10 watts |
| Resolution | 235,000 pixels |
| Video standard | NTSC/PAL auto |
| Operating temperature | –10°C to +60°C |
| Vibration resistance | 4 g |
| Weight | 300 g |
| Picture brightness | approx. 300 cd/m² |
| Mirrored picture function | via monitor |

**Colour universal camera CAM 27N**
- Colour CCD camera (PAL) with LED
- Real-view or mirrored picture function
- Sturdy, water-proof aluminium housing with protective steel cap and adjustable anti-dazzle sunshield
- Water-proof microphone
- Electronic brightness adjustment
- LDR controlled IR LEDs
- Wide-angle lens with large picture angle (120° diagonal)

| Technical data | CAM 27N |
|---|---|
| Dimensions (WxHxD) | 95 x 70 x 86 mm (incl. mount) |
| Power input | approx. 2.4 watts |
| Picture sensor | 1/4" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 90° v: approx. 70° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 8 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:** 5" LCD colour monitor, colour universal camera, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components, anti-dazzle sunshield

| Product | Ref. No. |
|---|---|
| PerfectView LCD 250 | RV-250/LCD |

Monitor 5" Camera Color E13 AUDIO

Top LCD technology

Colour camera with LED for enhanced night-time vision

## Fitted in a trice – no bothersome cable laying!

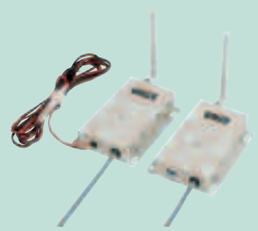
The most common way to connect a camera to a monitor is to lay several metres of cable through the vehicle interior. Depending on the type of vehicle you have, this can be quite a job.

**WAECO offers a fast and simple alternative: the PerfectView RV-FM-10 radio module.** It works perfectly with the PerfectView LCD250 reversing video system.

The radio module is supplied with power via the monitor or the reversing light. Its excellent transmission performance ensures impeccable picture and sound quality in virtually all situations. Should interference occur, simply readjust the antenna.

## Accessories for PerfectView LCD 250

### WAECO PerfectView Accessories 3.19



**Radio module for reversing video systems**
For fast and easy wireless installation
- Voltage supply: 12 to 15 volts
- 1 camera input
- 1 radio channel
- 20 m reach, depending on the installation

**Scope of delivery:**
Transmitter/receiver unit, installation and operating instructions

| Product | Ref. No. |
|---|---|
| Radio module | RV-FM-10 |

e24 CE 0682

Fast and easy wireless installation

**Extension cables between connection cable and monitor**
With 5-pole DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre extension cable | RV-405 |
| 10-metre extension cable | RV-410 |
| 15-metre extension cable | RV-415 |

Contents, specifications and availability are subject to change serving the technical improvement.

# WAECO PerfectView LCD 550S

www.waeco.com

# Extend your horizon!

## b/w camera with motor-operated shutter plus LCD monitor

This system combines an elegant **5" colour monitor** with the tried and tested CAM20M1 b/w camera. The camera features a **motor-operated shutter** that prevents soiling of the lens.

The reversing video system is activated either manually, or automatically as soon as reverse gear is engaged. The monitor delivers sharp contrast pictures even in very bright sunlight. Moreover, the system has an audio/video input for connection of a video recorder or DVD player. Using a commonly available head-set, passengers can listen to their personal "onboard programmes" without disturbing the driver.

The system is designed for 12 volts and provides two camera sockets. Those wishing to install an additional camera, can choose between the CAM27N colour camera or the CAM20M b/w camera.

**Outside camera with motor-operated shutter**

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView LCD 550S 3.19

**Reversing video system with 5" LCD monitor and b/w shutter camera**
Well-proven system with b/w camera "classic"

**5" LCD colour monitor M 511L**
- For 12 volt operating voltage
- Real-view or mirrored picture function via camera
- Two camera inputs (PAL/NTSC)
- Switches on automatically or by manual operation
- Automatic activation by **24-volt** signals possible
- Loudspeaker with volume regulation
- Infrared remote control

| Technical data | M 511L |
|---|---|
| Dimensions (WxHxD) | 143 x 125 x 70 mm (incl. mount) |
| Diagonal screen dimension | 5"/128 mm (visible picture) |
| Operating voltage | 12 to 15 volts DC |
| Power input | 8 watts |
| Resolution | 230,000 pixels |
| Video standard | NTSC/PAL auto |
| Operating temperature | –15°C to +60°C |
| Vibration resistance | 5 g |
| Weight | 300 g |
| Picture brightness | approx. 400 cd/m² |
| Mirrored picture function | via camera |

**b/w shutter camera CAM 20M1**
- Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
- Real-view or mirrored picture function
- Automatic, motor-operated shutter to prevent soiling of the camera lens
- Integrated heater
- Electronic brightness adjustment
- Wide-angle lens with large picture angle (140° diagonal)

| Technical data | CAM 20M1 |
|---|---|
| Dimensions (WxHxD) | 125 x 80 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | 140° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 100° v: approx. 75° |
| Light sensitivity | < 1 lux |
| Video standard | EIA |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:**
5" LCD colour monitor incl. mounting bracket, connection box for camera connection, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components, anti-dazzle sunshield, IR remote control

| Product | Ref. No. |
|---|---|
| PerfectView LCD 550S | RV-550/SWM |

Monitor 5" · Camera Color · E 27 · E 4

**Top LCD technology with up to 400 cd/m² picture brightness**

**Camera with motor-operated shutter**

**140° aperture angle**

**For operation on 24 volts: PerfectPower DCDC 06 voltage converter**

Good price/performance ratio

# Single components and accessories for PerfectView LCD 550S

## WAECO PerfectView CAM 20M 3.19

**b/w shutter camera for LCD systems**
For connection to LCD 550S system; for technical data see description of LCD 550S system

**Scope of delivery:** b/w shutter camera, connection box for camera connection, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 20M | RV-20/M-KIT |

Camera b/w · E 4

**Camera with motor-operated shutter**

## WAECO PerfectView CAM 27N 3.19

**Colour universal camera for LCD systems**
- Real-view or mirrored picture function
- Sturdy, water-proof aluminium housing with protective steel cap and adjustable anti-dazzle sunshield
- Water-proof microphone
- Electronic brightness adjustment
- LDR controlled IR LEDs
- Wide-angle lens with large picture angle (120° diagonal)

| Technical data | CAM 27N |
|---|---|
| Dimensions (WxHxD) | 95 x 70 x 86 mm (incl. mount) |
| Power input | approx. 2.4 watts |
| Picture sensor | 1/4" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 90° v: approx. 70° |
| Light sensitivity | < 1 lux oder 0 lux mit LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 8 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:** universal colour camera, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 27N | RV-27/N |

Camera Color · AUDIO · E 13

**Colour camera with LED for enhanced night-time vision**

## WAECO PerfectView Accessories 3.19

**System and extension cables for LCD systems**
With 6-pole mini DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre system and extension cable | RV-605 |
| 10-metre system and extension cable | RV-610 |
| 15-metre system and extension cable | RV-615 |

Contents, specifications and availability are subject to change serving the technical improvement.

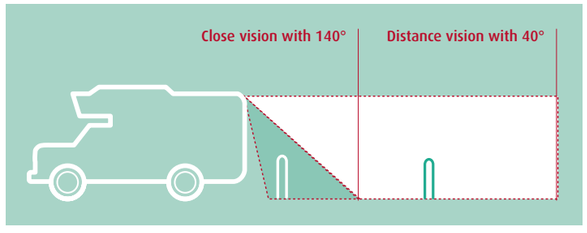
# The high-end system in the 5" category

## Twin camera for close and long-distance vision

Like the LCD550S, this reversing video system is equipped with the brilliant **M511L monitor**. The most outstanding feature of the **LCD590**, however, is the **CAM33C twin camera**. Apart from surveying the area immediately behind the vehicle, this camera also provides long-distance vision far beyond the vehicle.

The twin function is the result of two different camera modules integrated into the camera housing. The 140° colour camera module provides **optimal (close) vision** when reversing. It is complemented by a 40° **colour camera module for long-distance vision** towards the rear.

Unlike systems operating with a swivel-lens wide-angle camera, the WAECO camera yields a truly exceptional image for both applications.




**Two functions in a twin camera –
Close vision with 140° lens, long-distance vision with 40° lens**

Contents, specifications and availability are subject to change serving the technical improvement.



## One camera – two perspectives

WAECO's CAM33C twin camera combines two views in a single housing:

› The **long-distance camera** (40°) provides distance viewing e.g. when travelling in line or pulling a trailer. It is also useful in combination with the outside mirror when overtaking.

› The **close vision camera** (140°) provides an accurate view of everything happening immediately behind your vehicle – which means maximum safety e.g. when manoeuvring.

**Benefits compared to swivel-lens cameras include:**
The WAECO twin camera does without fault-prone electric motors and mechanical parts. There's no need for a control panel either. Moreover, both special WAECO cameras provide an optimal picture for the respective application.

When moving forward the **monitor** (e.g. WAECO M511L or M70L) shows the long-distance rear view; when reversing the system changes over to close-vision mode within fractions of a second. Thus it's easy to keep a perfect overview in any traffic situation.

CAM 33C1 (with shutter)

## WAECO PerfectView LCD 590 3.19

**Reversing video system with 5" LCD monitor and colour twin camera**
Perfect vision, close and far, day and night – compact LCD system with two light-intensive camera objectives (40°/140°)

**5" LCD colour monitor M 511L**
› For 12 volt operating voltage
› Mirrored picture function via camera
› Two camera inputs (PAL/NTSC)
› Switches on automatically or by manual operation
› Automatic activation by **24-volt** signals possible
› Loudspeaker with volume regulation
› Infrared remote control

| Technical data | M 511L |
|---|---|
| Dimensions (WxHxD) | 143 x 125 x 70 mm (incl. mount) |
| Diagonal screen dimension | 5"/128 mm (visible picture) |
| Operating voltage | 12 to 15 volts DC |
| Power input | 8 watts |
| Resolution | 230,000 pixels |
| Video standard | NTSC/PAL auto |
| Operating temperature | –15°C to +60°C |
| Vibration resistance | 5 g |
| Weight | 300 g |
| Picture brightness | approx. 400 cd/m² |
| Mirrored picture function | via camera |

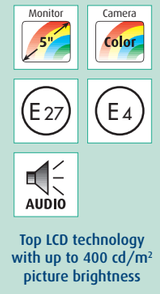
**Connection box RV-33-ADAPT**
› 1 camera input
› 2 monitor outputs: reversing camera and long-distance camera

**Colour twin camera CAM 33C**
› Colour CCD camera (PAL) with two camera modules
› Large picture angle in close-distance mode (140° diagonal)
› Telephoto function in long-distance mode (40° lens diagonal)
› Operation via the monitor's two camera outputs
› Manual or automatic switching between the two cameras
› Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
› Integrated heater
› Water-proof microphone
› Electronic brightness adjustment
› Factory-preset mirrored picture function
› LDR controlled IR LEDs for enhanced night-time vision

| Technical data | CAM 33C |
|---|---|
| Dimensions (WxHxD) | 125 x 73 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | Close vision 140° Distance vision 40° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | Close vision h: approx. 100° v: approx. 72° Distance vision h: approx. 32° v: approx. 28° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:**
5" LCD colour monitor with mounting bracket, colour twin camera, connection box for camera connection, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components, anti-dazzle sunshield, IR remote control

| Product | Ref. No. |
|---|---|
| PerfectView LCD 590 | RV-590 |




**Top LCD technology with up to 400 cd/m² picture brightness**

**Twin camera: two separate camera modules for optimal close and distance vision**

**40° and 140° aperture angles**

**For operation on 24 volts: PerfectPower DCDC 06 voltage converter**

pro mobil TESTSIEGER
Edition 2/2007

## WAECO PerfectView Accessories 3.19

**System and extension cables for LCD systems**
With 6-pole mini DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre system and extension cable | RV-605 |
| 10-metre system and extension cable | RV-610 |
| 15-metre system and extension cable | RV-615 |

Contents, specifications and availability are subject to change serving the technical improvement.

# WAECO PerfectView LCD 710

www.waeco.com

## The low-cost entry into the 7" category

### With large colour monitor and LED camera

**The LCD710 reversing video systems redefines value-for-money propositions. It comes with a large 7" LCD colour monitor and a colour camera with infrared LEDs and microphone. The integrated LEDs provide good image quality even in the dark.**

The system switches on automatically as soon as reverse gear is engaged, and can also be activated manually. The camera's microphone can be used to give instructions to the driver from the outside – audible to the driver via the monitor's speakers.

Installing the system is easy. The flat LCD monitor takes up very little space. Its additional video input can be used to connect a DVD player.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView LCD 710

3.19

**Reversing video system with 7" LCD monitor and colour universal camera**
Low-cost system for leisure use – good day and night vision with large 7" colour monitor and light-sensitive infrared LED camera

**7" LCD colour monitor M 71L**
- For 12 volt operating voltage
- Real-view or mirrored picture function via camera
- Two camera inputs (PAL/NTSC)
- Switches on automatically or by manual operation
- Manual brightness adjustment
- Loudspeaker

| Technical data | M 71L |
|---|---|
| Dimensions (WxHxD) | 175 x 135 x 100 mm (incl. mount) |
| Diagonal screen dimension | 7"/178 mm (visible picture) |
| Operating voltage | 12 volts DC |
| Power input | 10 watts |
| Resolution | 337,000 pixels |
| Video standard | NTSC/PAL auto |
| Operating temperature | –10°C to +60°C |
| Vibration resistance | 4 g |
| Weight | 300 g |
| Picture brightness | approx. 300 cd/m² |
| Mirrored picture function | via camera |

**Colour universal camera CAM 27N**
- Colour CCD camera (PAL) with LED
- Real-view or mirrored picture function
- Sturdy, water-proof aluminium housing with protective steel cap and adjustable anti-dazzle sunshield
- Water-proof microphone
- Electronic brightness adjustment
- LDR controlled IR LEDs
- Wide-angle lens with large picture angle (120° diagonal)

| Technical data | CAM 27N |
|---|---|
| Dimensions (WxHxD) | 95 x 70 x 86 mm (incl. mount) |
| Power input | approx. 2.4 watts |
| Picture sensor | 1/4" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 90° v: approx. 70° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 8 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:** 7" LCD colour monitor with mounting bracket, colour universal camera, 20 m camera-to-monitor connection cable, set of cables for monitor, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView LCD 710 | RV-710 |

Monitor 7" · Camera Color · E 27 · E 13 · AUDIO

**Top LCD technology with picture brightness up to 300 cd/m²**

**Colour camera with LED for enhanced night-time vision**

**For operation on 24 volts: PerfectPower DCDC 06 voltage converter**

## Single components and accessories for PerfectView LCD 710

### WAECO PerfectView CAM 20M

3.19

**b/w shutter camera for LCD systems**
- Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
- Real-view or mirrored picture function
- Automatic, motor-operated shutter to prevent soiling of the camera lens
- Integrated heater
- Electronic brightness adjustment
- Wide-angle lens with large picture angle (140° diagonal)

| Technical data | CAM 20M1 |
|---|---|
| Dimensions (WxHxD) | 125 x 80 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | 140° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 100° v: approx. 75° |
| Light sensitivity | < 1 lux |
| Video standard | EIA |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:** b/w shutter camera, connection box for camera connection, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 20M | RV-20/M-KIT |

Camera b/w · E 4

**Camera with motor-operated shutter**

### WAECO PerfectView CAM 27N

3.19

**Colour universal camera for LCD systems**
For connection to LCD 710 system, for technical data see description of LCD 710 system

**Scope of delivery:** colour universal camera, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 27N | RV-27/N |

Camera Color · E 13 · AUDIO

### WAECO PerfectView Accessories

3.19

**System and extension cables for LCD systems**
With 6-pole mini DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre system and extension cable | RV-605 |
| 10-metre system and extension cable | RV-610 |
| 15-metre system and extension cable | RV-615 |

Contents, specifications and availability are subject to change serving the technical improvement.

# Top-of-the-range reversing video system

## 7" TFT monitor with colour twin camera and motor-operated camera shutter

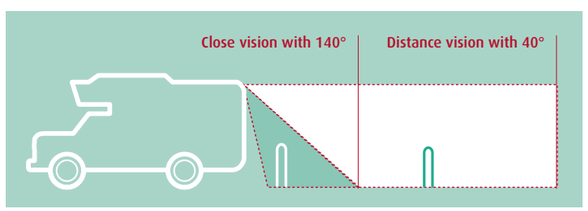
**The core component of this system is the CAM33C1 twin camera featuring two different camera modules and a motor-operated shutter. Apart from surveying the area immediately behind the vehicle, this camera also provides long-distance vision far beyond the vehicle.**

The twin function is the result of two different camera modules integrated into the camera housing. The 140° colour camera module provides optimal (close) vision when reversing. It is complemented by a 40° colour camera module for long-distance rear vision.

Using the two cameras this system yields optimal image quality in either mode.

The high-luminance 7" LCD monitor delivers brilliant pictures even in bright sunlight. Equipment extra: the motor-operated camera shutter protects the lens when the camera is not in use.

With this top-of-the-range system designed for **12/24 volt** operation, you have everything in view and under control!




**Two functions in a twin camera –
Close vision with 140° lens, long-distance vision with 40° lens**

Contents, specifications and availability are subject to change serving the technical improvement.

**Camera housing with two cameras and motor-operated shutter**

## WAECO twin camera with shutter

**The PerfectView LCD790 reversing video system is equipped with the WAECO twin camera CAM33C1 – a colour camera with two views and motor-operated shutter.**

The two cameras – with aperture angles of 40° and 140°, respectively – provide close and long-distance vision both in superior quality. Changing over the monitor display between close and long-distance vision can be done automatically (via reverse gear) or manually. Thus it's easy to keep a perfect overview in any traffic situation. The motor-operated shutter protects the camera from dust, dirt and weather.

## WAECO PerfectView LCD 790 3.19

**Reversing video system with 7" LCD monitor and colour twin camera with shutter**
High-tech system with high-quality 7" LCD monitor and colour twin camera for optimal close and distance vision

**7" LCD colour monitor M 70L**
- For 12- and 24-volt operating voltage
- Real-view or mirrored picture function via camera
- Two camera inputs (PAL/NTSC), programmable activation
- Switches on automatically or by manual operation
- Auto dimmer function
- Loudspeaker

| Technical data | M 70L |
|---|---|
| Dimensions (WxHxD) | 175 x 135 x 100 mm (incl. mount) |
| Diagonal screen dimension | 7"/178 mm (visible picture) |
| Operating voltage | 12 to 24 volts DC |
| Power input | 10 watts |
| Resolution | 337,000 pixels |
| Video standard | NTSC/PAL auto |
| Operating temperature | –10°C to +60°C |
| Vibration resistance | 4 g |
| Weight | 300 g |
| Picture brightness | approx. 300 cd/m² |
| Mirrored picture function | via camera |

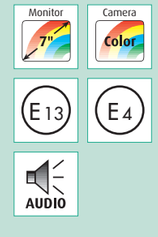
**Connection box RV-33-ADAPT**
- 1 camera input
- 2 monitor outputs: reversing camera and long-distance camera

**Colour twin camera with shutter CAM 33C1**
- Colour CCD camera (PAL) with two camera modules and shutter
- Large picture angle in close-distance mode (140° diagonal)
- Telephoto function in long-distance mode (40° lens diagonal)
- Operation via the monitor's two camera outputs
- Manual or automatic switching between the two cameras
- Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
- Automatic, motor-operated shutter to prevent soiling of the camera lenses
- Integrated heater
- Water-proof microphone
- Electronic brightness adjustment
- Factory-preset mirrored picture function
- LDR controlled IR LEDs for enhanced night-time vision

| Technical data | CAM 33C1 |
|---|---|
| Dimensions (WxHxD) | 125 x 73 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | Close vision 140° Distance vision 40° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | Close vision h: approx. 100° v: approx. 72° Distance vision h: approx. 32° v: approx. 28° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:**
7" LCD colour monitor with mounting bracket, colour twin camera, connection box for camera connection, 20 m monitor-to-camera connection cable, set of cables for monitor, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView LCD 790 | RV-790 |




**Top LCD technology with high picture brightness**

**Twin camera: two separate camera modules for optimal close and distance vision**

**40° and 140° aperture angles**

**Camera with motor-operated shutter**

## WAECO PerfectView Accessories 3.19

**System and extension cables for LCD systems**
With 6-pole mini DIN plug/jack

| Products | Ref. No. |
|---|---|
| 5-metre system and extension cable | RV-605 |
| 10-metre system and extension cable | RV-610 |
| 15-metre system and extension cable | RV-615 |

Contents, specifications and availability are subject to change serving the technical improvement.

# Parking aid + reversing video system

## The optimal combination of active and passive safety

**A parking aid featured in a chapter on reversing video systems? Yes, and for good reason, too. MagicWatch MWE 850RV features a camera input and is therefore ideal for combination with a reversing video system. The benefits of both systems – active and passive parking safety – are thus combined in a single unit. Could there be a better way to be on the safe side for you or your vehicle?**

DSM function, a kind of "digital memory" for objects permanently fitted to the vehicle – that's the **MagicWatch MWE 850RV** parking aid. Where reversing video systems are concerned, there's an obvious combination with the **PerfectView LCD 590** and the **PerfectView LCD 790**.

Both are high-grade systems with colour twin camera for optimal close and distance vision, both come with an LCD monitor (5" or 7", respectively). In addition to the camera pictures the monitor shows the distance measurements of the sensors. And – as with any good parking aid – you receive an acoustic signal as soon as you get too close to an obstacle.

### Little installation requirements – double benefits

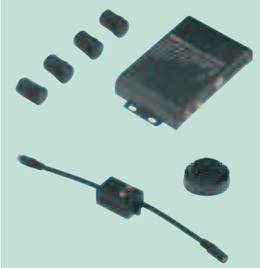
The best idea is to have the parking aid and the reversing video system installed "in one go" – it saves you a lot of time, money and hassle. If you can't make up your mind whether to go for the complete system-double yet, you can always retrofit your parking aid with the reversing video system of your choice at a later date.

Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO MagicWatch MWE 850RV 3.07

NEW



**Rear parking aid with DSM function, 4 built-in sensors and video input**

- Distance measurement with 4 ultrasonic sensors
- Activation of the system via the reverse gear
- Free voltage supply, 11 to 27 volts
- Self-diagnosis function with error indication
- Acoustic warning function
- DSM (Digital Signal Memory)
- Range: approx. 30 cm to 150 cm
- Perfect finish with built-in sensors, paintable (no multi-layer painting)
- e-approved

**Scope of delivery:**
4 ultrasonic sensors (2.5 m cable), 1 control unit, 1 acoustic display, video converter, 22 mm core bit, cardboard painting aid, fixing materials, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicWatch MWE 850RV | 2221500001 |

e13

Perfect finish with built-in sensors

Digital Signal Memory

Range: 30 – 150 cm

Information at its best: Video converter generates a distance diagram on the monitor screen

Supplied with 22 mm core bit

## The following reversing video systems are available for combination with the MagicWatch MWE 850RV parking aid:

### WAECO PerfectView LCD 590

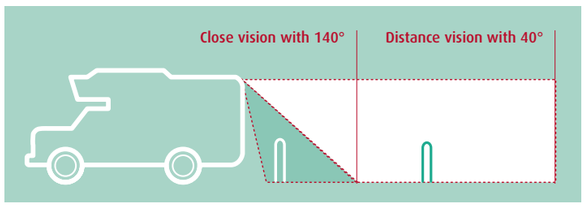
- Compact 5" LCD colour monitor
- Top LCD technology with picture brightness up to 400 cd/m²
- Colour twin camera with two separate camera modules for optimal close and distance vision
- 40° and 140° aperture angles

Detailed product information on **pages 166 – 167**

### WAECO PerfectView LCD 790

- Flat 7" LCD colour monitor
- Top LCD technology with excellent picture brightness
- Colour twin camera with two separate camera modules for optimal close and distance vision
- 40° and 140° aperture angles
- Camera with motor-operated shutter

Detailed product information on **pages 170 – 171**




**Two functions in a twin camera –
Close vision with 140° lens, long-distance vision with 40° lens**

Contents, specifications and availability are subject to change serving the technical improvement.

# Using your GPS monitor as manoeuvring aid

## Reversing cameras for navigation systems

**Do you have a navigation system with monitor fitted in your vehicle? Then it's easy and cost-effective for you to get a fully-fledged reversing video system.**

All you have to do is connect a WAECO PerfectView rearview camera to the monitor of your navigation system. A compact solution available at a good price.

WAECO has the right camera for every demand and budget: from low-cost b/w cameras (PerfectView CAM24NAV) to high-tech colour cameras with twin cameras for close and distance vision, motor-operated shutter and connection box (PerfectView CAM33C). All WAECO cameras feature LED support for enhanced night-time vision. Installation is hassle-free, all fittings are included in the delivery kit.

### WAECO PerfectView compatibility with navigation systems

| Manufacturer/ navigation system | Accessories supplied by manufacturer | WAECO camera | WAECO accessories | Required accessories | Notes |
|---|---|---|---|---|---|
| **BLAUPUNKT**<br>EX-V Professional | FBAS/RGB-converter 7607005718 or interface box IVSC 1102 or successor model | CAM 33C3 | RV-33-TCFMS-KIT* | BNC adapter** | **RGB converter:** Connect PIN 6 of the 6-pin plug to reverse gear or to the control cable of the RV-AMP/4. The camera picture must be a mirrored one.<br>**Interface box:** Connection via RCA cable, activation via reverse gear (select "rear-view camera" under menu entry "Settings"). The camera picture must not be a mirrored one. |
| | | CAM 20C | RV-20/CFM-PAL-K* | BNC adapter** | |
| | | CAM 24NAV | RV-24-NAV | | |
| | | CAM 27NAV | RV-27-NAV | | |
| | | CAM 30 | RV-30K | RV-ADAPT-NAV | |
| | | CAM 30C | RV-30K-F | RV-ADAPT-NAV | |
| | | * only in combination with the converter | | ** not from WAECO, available from specialist stockists | |
| **VDO-DAYTON**<br>PC 5600/00 | Adapter MA 1200 | CAM 20C | RV-20/CFM-PAL-K | | **Connection via MA1200 + RV-64 adapter:** Camera activated via reverse gear (select "rear-view camera" under menu entry "Settings – General settings – System configuration").<br>**RV-AMP/4:** Connect reverse gear cable of the navigation computer to the control cable. The camera picture must not be a mirrored one. |
| | | CAM 24NAV | RV-24-NAV | | |
| | | CAM 27NAV | RV-27-NAV | | |
| | | CAM 30 | RV-30K | RV-ADAPT-NAV | |
| | | CAM 30C | RV-30K-F | RV-ADAPT-NAV | |
| **KENWOOD**<br>KVT-627DVD<br>DDX6029 | | CAM 20C | RV-20/CFM-PAL-K | | Connection via AUX IN with RCA cable<br>Compatible with PAL and NTSC |
| | | CAM 24NAV | RV-24-NAV | | |
| | | CAM 27NAV | RV-27-NAV | | |
| | | CAM 30 | RV-30K | RV-ADAPT-NAV | |
| | | CAM 30C | RV-30K-F | RV-ADAPT-NAV | |
| | | CAM 33C3 | RV-33-TCFMS-KIT | | |
| **Pioneer**<br>AVIC-X1R | | CAM 20M | RV-20/M-KIT | | Connection to tuner with RCA cable<br>Camera activation via reverse gear<br>Compatible with PAL and NTSC |
| | | CAM 20C | RV-20/CFM-PAL-K | | |
| | | CAM 24NAV | RV-24-NAV | | |
| | | CAM 27NAV | RV-27-NAV | | |
| | | CAM 30 | RV-30K | RV-ADAPT-NAV | |
| | | CAM 30C | RV-30K-F | RV-ADAPT-NAV | |

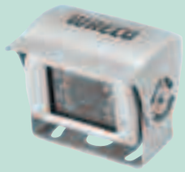


Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectView CAM 24NAV / CAM 27NAV

3.19



**b/w universal camera CAM 24NAV**
**Colour universal camera CAM 27NAV**

- Real-view or mirrored picture function
- Sturdy, water-proof aluminium housing with protective steel cap and adjustable anti-dazzle sunshield
- Water-proof microphone
- Electronic brightness adjustment
- LDR controlled IR LEDs for enhanced night-time vision
- Wide-angle lens with large picture angle (120° diagonal)

| Technical data | CAM 24NAV / CAM 27NAV |
|---|---|
| Dimensions (WxHxD) | 95 x 70 x 86 mm (incl. mount) |
| Power input | approx. 2.4 watts |
| Picture sensor | 1/4" CCD sensor |
| Lens | 120° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 90° v: approx. 70° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | CAM 24NAV: CCIR<br>CAM 27NAV: PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 8 g |
| Type of protection | Equivalent to IP 67 |

**Scope of delivery:**
Universal camera, 20 m monitor-to-camera connection cable, installation fittings for all components, adapter cable for navigation systems

| Product | Ref. No. |
|---|---|
| PerfectView CAM 24NAV, b/w universal camera | RV-24-NAV |
| PerfectView CAM 27NAV, colour universal camera | RV-27-NAV |

CAM 24NAV b/w · CAM 27NAV Color · E13 · AUDIO

LED for enhanced night-time vision

## WAECO PerfectView CAM 20C

3.19

**Colour shutter camera CAM 20C1**

- Colour camera (PAL) with shutter
- Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
- Automatic, motor-operated shutter to prevent soiling of the camera lens
- Integrated heater
- Electronic brightness adjustment
- Wide-angle lens with large picture angle (140° diagonal)
- Water-proof microphone
- Factory-preset mirrored picture function
- LDR controlled IR LEDs for enhanced night-time vision

| Technical data | CAM 20C1 |
|---|---|
| Dimensions (WxHxD) | 125 x 80 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | 140° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | h: approx. 96° v: approx. 72° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Connection box RV-AMP/4**
**The connection box allows you to connect the camera to almost any monitor with automatic video format recognition.** Second AV video output (RCA), e.g. for computers, navigation, TV.

**Scope of delivery:**
Colour shutter camera, connection box for camera connection, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 20C | RV-20/CFM-PAL-K |

Camera Color · AUDIO · E4

Camera with motor-operated shutte

LED for enhanced night-time vision

## WAECO PerfectView CAM 33C3

3.19

**Colour twin camera with shutter CAM 33C1**

- Colour CCD camera (PAL) with two camera modules and shutter
- Large picture angle in close-distance mode (140° diagonal)
- Telephoto function in long-distance mode (40° lens diagonal)
- Operation via the monitor's two camera outputs
- Manual or automatic switching between the two cameras
- Anodised and powder coated aluminium housing with protective cap and mount in stainless steel
- Automatic, motor-operated shutter to prevent soiling of the camera lenses
- Integrated heater
- Water-proof microphone
- Electronic brightness adjustment
- Factory-preset mirrored picture function
- LDR controlled IR LEDs for enhanced night-time vision

| Technical data | CAM 33C1 |
|---|---|
| Dimensions (WxHxD) | 125 x 73 x 115 mm (incl. mount) |
| Power input | approx. 1.2 watts |
| Picture sensor | 1/3" CCD sensor |
| Lens | Close vision 140° Distance vision 40° aperture angle, diagonal |
| Resolution | 270,000 pixels |
| Picture angle | Close vision h: approx. 100° v: approx. 72° Distance vision h: approx. 32° v: approx. 28° |
| Light sensitivity | < 1 lux or 0 lux with LED |
| Video standard | PAL |
| Operating temperature | –20°C to +65°C |
| Vibration resistance | 6 g |
| Type of protection | Equivalent to IP 67 |

**Connection box RV-AMP/4**
**The connection box allows you to connect the camera to almost any monitor with automatic video format recognition.** Second AV video output (RCA), e.g. for computers, navigation, TV.

**Scope of delivery:**
Colour twin camera with shutter, connection box for camera connection, 20 m monitor-to-camera connection cable, installation fittings for all components

| Product | Ref. No. |
|---|---|
| PerfectView CAM 33C3 | RV-33-TCFMS-KIT |

Camera Color · AUDIO · E4

Twin camera: two separate camera modules for optimal close and distance vision

40° and 140° aperture angles

Camera with motor-operated shutter

Contents, specifications and availability are subject to change serving the technical improvement.

Model: MB Sprinter

Model: Fiat Ducato

# A perfect hold for mobile equipment

## WAECO PerfectFit monitor consoles: versatile, functional, safe

**Do you want to fit a monitor, MP3 player, iPod, PDA or similar in your motorhome? Then the best way to fasten your mobile equipment is a WAECO PerfectFit monitor console. Ergonomic, favourably priced, safe and secure, WAECO consoles are a perfect fit for your recreational vehicle.**

WAECO PerfectFit consoles are custom-made to suit specific vehicles. Shapes and materials perfectly match the interior design. **All essential operating elements stay in easy reach, safe and convenient handling is guaranteed at all times.**

**PerfectFit monitor consoles are extremely sturdy. Even heavy equipment can be safely fixed.** Large LCD monitors and bulky CRT units are no problem whatsoever. PerfectFit monitor consoles can also be used for PDAs (e.g. for mobile navigation), MP3 players, iPods ... and just about everything you'd like to have within reach while driving. **PerfectFit brings more safety, more driving pleasure and cool design** to your vehicle.

PerfectFit consoles are made from shatter-proof, flame-retardant materials (TÜV-approved). Their outer skin consists of hard-wearing reproduction leather, **hand-crafted with ultimate care**. During installation connections are made to the vehicle's existing fixing points. Thus the consoles can be easily dismantled anytime (e.g. when the vehicle is sold) without leaving a mark on the vehicle.

**Detailed info within easy reach:**
Find out more about PerfectFit consoles at
**www.waeco.com/perfectfit**!

Model: VW Passat



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectFit consoles for LCD/CRT monitors*, MP3 players, iPods and PDAs 3.02

| Citroën | Ref. No. |
|---|---|
| Citroën Jumper, 96 to 04/02, black, reproduction leather | FIM005 |
| Citroën Jumper, 04/02 to 08/06, black, reproduction leather | FIM015 |
| Citroën Jumper, 04/02 to 08/06, anthracite, genuine leather | FIM020-MG-ANTH |
| Adapter cable for radio conversion with FIM020-MG-ANTH | ADKADUC02 |
| Citroën Jumper, 04/02 to 08/06, without radio conversion, for LCD and CRT monitors, black, reproduction leather | FIM035 |
| Citroën Jumper, from 09/06-, black, reproduction leather | FIM045 |

| DAF | Ref. No. |
|---|---|
| DAF XF95, from 09/02, for CRT monitors, black, reproduction leather | DFM005 |
| DAF XF105, from year 06, for CRT monitors, black, reproduction leather | DFM005 |

| Fiat | Ref. No. |
|---|---|
| Fiat Ducato, 96 to 04/02, black, reproduction leather | FIM005 |
| Fiat Ducato, 04/02 to 08/06, black, reproduction leather | FIM015 |
| Fiat Ducato, 04/02 to 08/06, anthracite, genuine leather | FIM020-MG-ANTH |
| Adapter cable for radio conversion with FIM020-MG-ANTH | ADKADUC02 |
| Fiat Ducato, 04/02 to 08/06, without radio conversion, for LCD and CRT monitors, black, reproduction leather | FIM035 |
| Fiat Ducato, from 09/06-, black, reproduction leather | FIM045 |

| Ford | Ref. No. |
|---|---|
| Ford Transit, from 03/00-, left, black, reproduction leather | FOM035 |
| Ford Transit, from 03/00-, middle, black, reproduction leather | FOM065 |
| Ford Transit, from 03/00, middle, for LCD and CRT monitors, black, reproduction leather | FOM075 |

| Iveco | Ref. No. |
|---|---|
| Iveco Daily, 05/99 to 04/06, black, reproduction leather | IVM005 |
| Iveco Stralis active day / active time, from 02/02, for CRT monitors, black, reproduction leather | IVM015 |
| Iveco Stralis active space, from 02/02, for CRT monitors, black, reproduction leather | IVM035 |
| Iveco Stralis active space, from 02/02, for LCD monitors, black, reproduction leather | IVK015 |
| Iveco EuroCargo, from 09/00, black, reproduction leather | IVK025 |

| MAN | Ref. No. |
|---|---|
| MAN TG-A, from 04/00, for CRT monitors, black, reproduction leather | MNM005 |

| Mercedes-Benz | Ref. No. |
|---|---|
| MB Actros 2003, from 04/03, for CRT monitors, black, reproduction leather | MBM095 |
| MB Atego, from year 04, for CRT monitors, black, reproduction leather | MBM115 |
| MB Axor, from year 04, for CRT monitors, black, reproduction leather | MBM115 |
| MB Sprinter, year 00 to 04/06, black, small, reproduction leather | MBM005 |
| MB Sprinter, year 00 to 04/06, black, large, reproduction leather | MBM065 |
| MB Sprinter, from 05/06, black, reproduction leather | MBM145 |
| MB Viano, from 09/03, black, reproduction leather | MBM075 |

| Nissan | Ref. No. |
|---|---|
| Nissan Interstar, 99 to 10/03, black, reproduction leather | REM005 |
| Nissan Interstar, from 11/03-, small, black, reproduction leather | REM065 |
| Nissan Interstar, from 11/03-, large, black, reproduction leather | REM07 |

| Opel | Ref. No. |
|---|---|
| Opel Movano, 99 to 10/03, black, reproduction leather | REM005 |
| Opel Movano, from 11/03-, small, black, reproduction leather | REM065 |
| Opel Movano, from 11/03-, large, black, reproduction leather | REM075 |

| Peugeot | Ref. No. |
|---|---|
| Peugeot Boxer, 96 to 04/02, black, reproduction leather | FIM005 |
| Peugeot Boxer, 04/02 to 08/06, black, reproduction leather | FIM015 |
| Peugeot Boxer, 04/02 to 08/06, anthracite, genuine leather | FIM020-MG-ANTH |
| Adapter cable for radio conversion with FIM020-MG-ANTH | ADKADUC02 |
| Peugeot Boxer, 04/02 to 08/06, without radio conversion, for LCD and CRT monitors, black, reproduction leather | FIM035 |
| Peugeot Boxer, from 09/06-, black, reproduction leather | FIM045 |

| Renault | Ref. No. |
|---|---|
| Renault Master, 99 to 10/03, black, reproduction leather | REM005 |
| Renault Master, from 11/03-, small, black, reproduction leather | REM065 |
| Renault Master, from 11/03-, large, black, reproduction leather | REM075 |

| Scania | Ref. No. |
|---|---|
| Scania R Series, from 03/04, for CRT monitors, black, reproduction leather | SCM005 |

| Volkswagen | Ref. No. |
|---|---|
| VW Crafter, from 06-, black, reproduction leather | MBM145 |
| VW T4 Caravelle / Multivan, from 95-, black, reproduction leather | VWM015 |
| VW T4 Transporter, 10/90 to 12/95, black, reproduction leather | VWM005 |
| VW T4 Transporter, from 01/96-, black, reproduction leather | VWM015 |
| VW T5 Transporter, from 03-, black, reproduction leather | VWM065 |

| Volvo | Ref. No. |
|---|---|
| Volvo FH Series, from year 01, for CRT monitors, black, reproduction leather | VOM01 |

* Consoles for CRT monitors are marked appropriately.

Contents, specifications and availability are subject to change serving the technical improvement.

Model: Volkswagen

Model: Opel

# A better place for your navigation device

## Perfect design, convenient and safe

**Mobile navigation systems have many friends – but little chance of getting a safe and secure place in vehicles. Suction cup mounts often won't give a reliable hold, and they are certainly not the best choice where functionality and looks are concerned. Vehicle-specific PerfectFit navigation consoles provide a perfect solution for all commonly used navigation devices.**

### WAECO PerfectFit navigation consoles: perfect in form and function

WAECO navigation consoles provide a safe and ergonomic mounting platform for PNAs, PDAs and smart phones. They are designed to match the interior of specific vehicles, and not only in terms of appearance. All operating elements stay in easy reach, safe and convenient handling is guaranteed at all times.

PerfectFit navigation consoles are fastened to the vehicle's existing mounting points. Installation is fast and easy, no need to drill holes – and 100% clean dismantling when the vehicle is to be sold.

**WAECO PerfectFit consoles will also fit your vehicle. Get yourself a safe place for your navigation device. You will love the cool design and enjoy the convenient handling while driving.**

Model: Fiat Ducato

**Get yourself an overview at**

**www.waeco.com/perfectfit**



Contents, specifications and availability are subject to change serving the technical improvement.



### NEW! Navigation consoles also provide hold for PerfectView monitors!*

Our tip: PerfectFit navigation consoles can be converted into a vehicle-specific mount for the monitor of your PerfectView reversing video system. It works a treat. All you need is a navigation console from the table below and a monitor mount to match the PerfectView reversing video system you have (LCD 550, LCD 550S, LCD 570, LCD 590 or LCD 710). **Pages** 164 – 169

Take a navigation console ...

... and detach the plastic bracket.

Then fasten the base plate of the monitor mount using the bolts included in the set ...

...and attach the ball head to it. Done!

*** For more detailed information please refer to the intallation instructions at www.waeco.com/perfectfit**

### WAECO PerfectFit navigation consoles 3.02 NEW

| Citroën | Ref. No. |
|---|---|
| Citroën Jumper, 04/02 to 08/06, black, reproduction leather | FIR015 |
| Citroën Jumper, from 09/06, black, reproduction leather | FIR045 |

| DAF | Ref. No. |
|---|---|
| DAF XF95, from 09/02, black, reproduction leather | DFR005 |
| DAF XF105, from year 06, black, reproduction leather | DFR005 |

| Fiat | Ref. No. |
|---|---|
| Fiat Ducato, 04/02 to 08/06, black, reproduction leather | FIR015 |
| Fiat Ducato, from 09/06, black, reproduction leather | FIR045 |

| Ford | Ref. No. |
|---|---|
| Ford Transit, 03/00 to 05/06, centre, black, reproduction leather | FOR065 |
| Ford Transit, from 06/06, black, reproduction leather | FOR115 |
| Ford Transit / Tourneo Connect, from year 03, black, reproduction leather | FOR055 |

| MAN | Ref. No. |
|---|---|
| MAN TG-A, from 04/00, black, reproduction leather | MNR005 |

| Mercedes-Benz | Ref. No. |
|---|---|
| MB Actros 2003, from 04/03, black, reproduction leather | MBR095 |
| MB Atego, from year 04, black, reproduction leather | MBR115 |
| MB Axor, from year 04, black, reproduction leather | MBR115 |
| MB Sprinter, year 00 to 04/06, black, small , reproduction leather | MBR005 |
| MB Sprinter, from 05/06, black, reproduction leather | MBR145 |

| Nissan | Ref. No. |
|---|---|
| Nissan Interstar, from 11/03, small, black, reproduction leather | RER065 |

| Opel | Ref. No. |
|---|---|
| Opel Movano, from 11/03, black, reproduction leather | RER065 |

| Peugeot | Ref. No. |
|---|---|
| Peugeot Boxer, 04/02 to 08/06, black, reproduction leather | FIR015 |
| Peugeot Boxer, from 09/06, black, reproduction leather | FIR045 |

| Renault | Ref. No. |
|---|---|
| Renault Master, from 11/03, black, reproduction leather | RER065 |

| Scania | Ref. No. |
|---|---|
| Scania R Series, from 03/04, black, reproduction leather | SCR005 |

| Volvo | Ref. No. |
|---|---|
| Volvo FH Series, from year 01, black, reproduction leather | VOR015 |

| Volkswagen | Ref. No. |
|---|---|
| VW Crafter, from year 06, black, reproduction leather | MBR145 |
| VW Transporter T5, from 04/03, black, reproduction leather | VWR065 |

Model: Fiat Ducato

**This is an overview of our console range for motorhomes and trucks. More models for passenger cars and transporters are available at www.waeco.com/perfectfit.**

### Suitable for certain navigation systems of the following makes*:

ACER // ASUS // BLAUPUNKT // BLUEMEDIA // DELPHI-GRUNDIG // FALK // FUJITSU-SIEMENS // HARMAN/BECKER // MEDION // MIO NAVIGON // NOVOGO // ROUTE 66 // TRANSONIC // YPHOON // TOMTOM // VDO-DAYTON // YAKUMO

* Before you buy make sure the console you pick fits the model you have.

Contents, specifications and availability are subject to change serving the technical improvement.

# › Vehicle accessories


| | | |
|---|---|---|
| WAECO MagicWatch | Parking aids | 184 › 187 |
| WAECO MagicSafe | Car alarms | 188 › 191 |
| WAECO MagicSafe | Gas detector | 192 › 193 |
| WAECO MagicSpeed | Cruise controls | 194 › 197 |

# Sit back and relax!
## Vehicle accessories for retrofitting

**Fast and hassle-free installation in cars and motorhomes.**

Stress or even fear are bad road companions. Critical traffic situations, concerns regarding your vehicle, worries about your personal safety, or even the fear of speeding in foreign countries are unlikely to add to your driving pleasure.

Taking WAECO vehicle accessories on board means enjoying your holiday right from the start – and making every day driving less stressful, too. All products can be fitted to your car or motorhome without major effort. This particularly applies for the new cruise control and car alarm systems, both of them CAN bus compatible.

Just install them and enjoy a huge plus in safety and comfort. You are entitled to that much freedom (from stress)!



Contents, specifications and availability are subject to change serving the technical improvement.



### WAECO MagicWatch

#### Parking aids for rear and front

**Slot into tight parking spaces with ease – with MagicWatch parking aids.** Featuring ultra-compact sensors, the systems can also be used in difficult installation situations. Available as rear parking aid with 4 sensors or as 8-sensor rear-and-front system.

**Pages 184 – 187**

### WAECO MagicSafe

#### Universal car alarms

**Two tried and tested safety concepts for cars and motorhomes.** The choice is yours: the CAN bus compatible system for super-fast installation, or the comfort version providing the option to be combined with a movement sensor and many other extras.

**Pages 188 – 191**

### WAECO MagicSafe

#### Gas detector for 12 and 24 volts

**No need to fear invisible intruders:** The compact unit detects all common knock-out gases. It emits a visual and audible alarm to alert you in an emergency.

**Pages 192 – 193**

### WAECO MagicSpeed

#### Cruise controls for specific vehicles

A welcome relief for your gas foot on long, monotonous stretches. **New:** CAN bus compatible design, especially fast and easy to install. Available for many campervan base vehicles.

**Pages 194 – 197**

Contents, specifications and availability are subject to change serving the technical improvement.

# Reversing without risk

## Parking aids for recreational vehicles

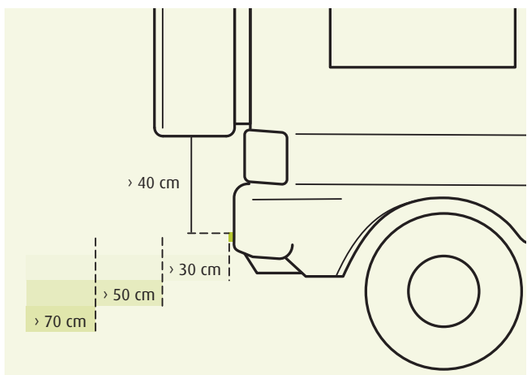
**Is there enough space or not? Reversing a motorhome or caravan can be tricky – and costly, too, if it goes wrong.**

A MagicWatch parking aid helps you to avoid unnecessary stress and expense. It warns you if your vehicle comes too close to an obstacle. MagicWatch MWE 900 is a very reliable parking aid, well proven especially on recreational vehicles. The system comes with super-compact sensors (just 18 mm in diameter), which are easy to fit even in difficult or confined areas. All installation accessories are included in the set.

The variable stop line (see diagram on the right) is yet another bonus that sets the MWE 900 apart from other parking aid systems.

### Variable stop line

The parking aid sensors are located at the rear bumper, but there's a tow-bar, step or spare tyre protruding beyond the bumper. No problem whatsoever, MagicWatch will take account of such "extras". Simply shift back the stop line (by up to 40 cm) and use your parking aid as you normally would.






Contents, specifications and availability are subject to change serving the technical improvement.



# Always a perfect installation result!

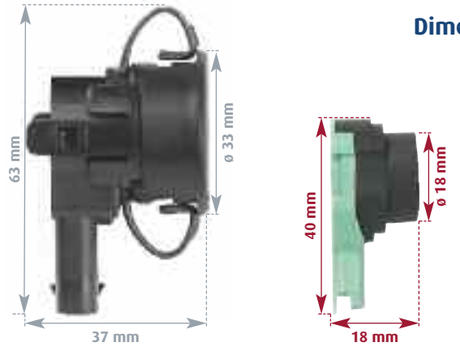
## Intelligent system with the smallest sensors available

Seeing is believing, although it's not all that easy ... The sensors of the MagicWatch MWE 900 parking aid are only 18 mm in diameter and feature a mere 18 mm installation depth. A new record in the market, as competitors' sensors are far larger and therefore less elegant than WAECO products. The sensors are integrated into the rear bumper, spray-painted in the vehicle body colour and yield a perfect installation result.

MagicWatch MWE 900 warns you with an acoustic signal if your vehicle comes too close to an obstacle. You can use the Parameter Programming System (PPS) to decide when and under what circumstances. All system parameters – range, sensitivity, visual rejection of mounted parts, etc. – can be programmed individually. For example, it is possible to account for tow-bars.

**Compare for yourself!** Visible area

**Dimensions**




### WAECO MagicWatch MWE 900 3.07

**NEW**

**Rear parking aid with 4 built-in sensors**

- Latest-generation sensors
- Suitable for difficult installation situations
- Distance measurement with 4 ultrasonic sensors
- Activation of the system via reverse gear
- Self-diagnosis with error indication
- Acoustic warning function
- Range: 0.3 – 1.8 m
- Option to shift the stop line
- For all vehicles with 12 to 30 volts power supply
- Very compact sensors (18 mm Ø x 18 mm), paintable
- PPS Parameter Programming System (to set system parameters such as sensitivity, visual rejection of mounted parts, etc.)
- E-approved

**Scope of delivery:**
4 ultrasonic sensors, 1 control unit, 1 membrane speaker, cardboard painting aid, comprehensive fixing materials, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicWatch MWE 900 | MWE-900-4PPS |
| **Optional extra:** | |
| 1.5 extension cable for sensors | 2221500002 |

**High-performance, latest-generation sensors**

**Range: 0.3 – 1.8 m**

**Ideal for difficult mounting situations**

**Parameter Programming System (PPS)**

**Certified to ISO 17386**

Contents, specifications and availability are subject to change serving the technical improvement.

# Eight sensors for perfect vision …

## Parking aid for front and rear

**If you are looking for maximum manoeuvring safety you will find it with the MagicWatch MWE 910 parking aid. A product that is unique in the market, designed for the front and rear in every respect.**

As a result it is able to differentiate between front and rear – and that is its major advantage compared to other systems that come with the same configuration at the front and rear and tend to warn far too early in the front range. A total of eight sensors are involved in measuring the distance to the vehicle in front or behind, respectively: four sensors in the front and four in the rear bumper. Painted in the vehicle colour, they are hardly noticeable – no wonder considering the sensor size: the MWE 910 uses the same ultra-compact sensors (just 18 mm in diameter) as the MWE 900 parking aid. Even difficult installation situations can easily be handled with this system, too.

As many recreational vehicles are packed with items protruding beyond the bumpers, the stop line of this parking aid is adjustable – by up to 40 cm.

### Easy installation

**Regardless of which MagicWatch parking aid you opt for – you'll be surprised at how fast and easy these high-tech systems are to install.**

All components are designed for plug-'n'-play convenience. The sensors come with water-proof plug-in connectors. The warning functions can be adjusted to the specific vehicle conditions. Just follow the step-by-step installation instructions. It's even easier with the **vehicle-specific mounting instructions** available for many types of vehicles. **Ask your dealer or contact us directly.**



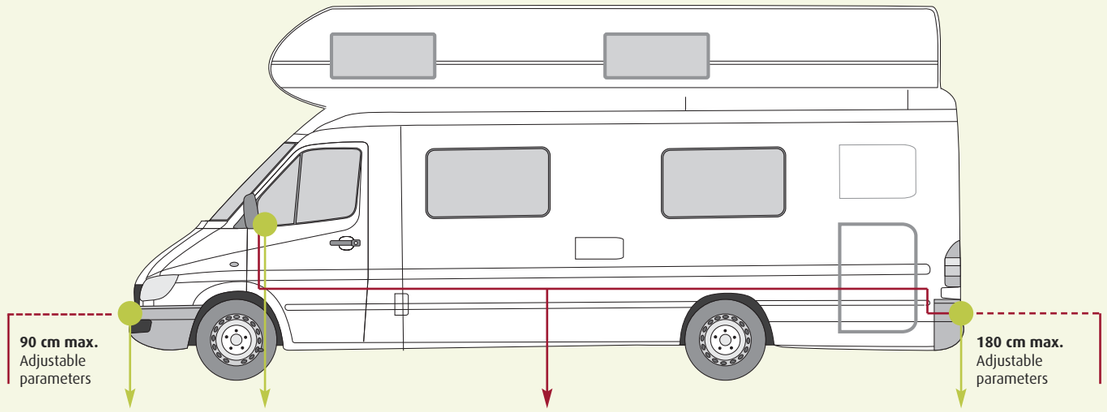
Contents, specifications and availability are subject to change serving the technical improvement.



## Always at a distance – safety for front and rear

**Warnings (at the front) given out too early are annoying. But that's the very problem with many 8-sensor systems, whose configuration for the front and rear bumper is the same.**

WAECO is the only supplier of a system that differentiates. In forward motion the MagicWatch MWE 910 doesn't start warning before the distance is 90 cm. That helps to keep the driver calm. Additionally, the PPS Parameter Programming System permits individual adjustment of the sensitivity and other system parameters for front and rear. The front parking sensors are activated by the ignition and de-activated via the speed signal. As soon as you switch into reverse, the rear system takes over the distance measurement and warning functions.


90 cm max.
Adjustable parameters
180 cm max.
Adjustable parameters
Easy installation of the **4 sensors** in the front bumper
The **receiver** is firmly installed in the vehicle's cockpit
**Hard-wired signal transmission** from the base unit to the receiver (1 wire only)
Easy installation of the **4 sensors** in the rear bumper

### WAECO MagicWatch MWE 910 3.07

**NEW**

**Parking aid with 8 built-in sensors for front and rear**

- Distance measurement with 8 ultrasonic sensors
- Activation of the rear system via reverse gear
- Activation of the front system with switched on ignition, deactivation via speed signal
- Self-diagnosis with error indication
- Acoustic warning function
- Range rear: 0.3 to 1.8 m
- Range front: 0.25 to 0.95 cm
- Stop line can be shifted for front and rear
- For all vehicles with 12 to 30 volts power supply
- Very compact sensors (18 mm Ø x 18 mm), paintable
- PPS Parameter Programming System (to set system parameters such as sensitivity, visual rejection of mounted parts, etc.)
- E-approved

**Scope of delivery:**
8 ultrasonic sensors (4 rear, 4 front sensors), 2 control units, 1 membrane speaker, cardboard painting aid, comprehensive fixing materials, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicWatch MWE 910 | MWE-910-8PPS |
| **Optional extra:** | |
| 1.5 extension cable for sensors | 2221500002 |

**Safe and secure all around**

**Range rear: 0.3 to 1.8 m range front: 0.25 to 0.95 m**

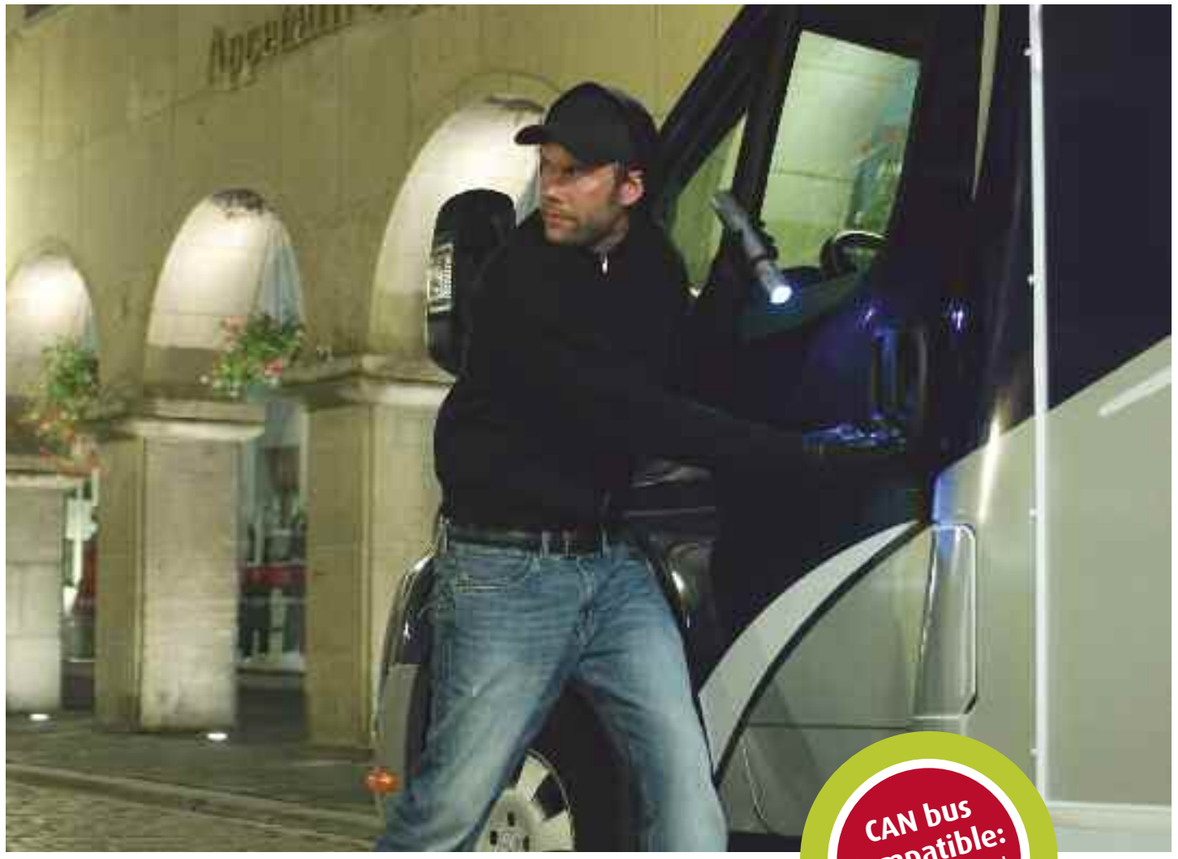
**High-end system**

**Ideal for difficult mounting situations**

**Parameter Programming System (PPS)**

**Certified to ISO 17386**

Contents, specifications and availability are subject to change serving the technical improvement



CAN bus Compatible: fitted in a trice!

# Hands off!

## Car alarm for vehicles with comfort CAN bus system

**You can't stop dishonest people from taking an interest in your motorhome. You can make sure that upsetting attempts to steal your property are unsuccessful, however. The MagicSafe MS 670 car alarm offers you the greatest possible protection.** Designed for vehicles with **CAN bus data lines**, it is amazingly fast and easy to install. Suitable for many campervan base vehicles – and certainly for yours as well.

### Digital security management

**Digital theft protection combined with comprehensive convenience – that's the MagicSafe MS 670 car alarm.**

This digital security system communicates with your vehicle's **CAN bus data lines**. It triggers the siren as well as the hazard lights if someone is tampering with a door, the boot, the bonnet, or the ignition. Additionally, it monitors the interior by means of ultrasonic sensors. The **battery-protected backup siren** knows no mercy, even if the burglar disconnected it from the onboard power supply. The **CAN bus compatible alarm system** is fitted in no time at all. Key in a code to programme it to your vehicle, and operate it simply with the hand transmitter of your vehicle key.
Here are two tips for extra comfort and safety during the time you are in the vehicle. First, the sensors monitoring the interior can be deactivated separately. Second, you can combine the car alarm with the MSG 150 gas detector (p. 193).



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO MagicSafe MS 670 3.08

NEW

**CAN bus compatible universal car alarm**

- Monitors the interior with ultrasonic sensors
- Universal unit, vehicle-specific programming by code
- Electronic key to deactivate the alarm in an emergency
- Operation with original remote control, connection to door contact switch and tailgate via CAN bus lines
- E-approved

| | |
|---|---|
| Operating voltage | 9 to 15 volts DC |
| Max. current consumption in alarm mode | approx. 800 mA |
| Power consumption in standby mode | 10 mA |
| Indicator output | 8 A |
| Operating temperature | –30°C to +70°C |
| Alarm duration | 30 sec. |

**Scope of delivery:**
Control electronics, backup siren, ultrasonic sensors, electronic key with base, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicSafe MS 670 | MS-670 |
| **Optional extras:** | |
| Gas detector (see p. 193) | MSG-150-N |
| Magnetic contact switch | MS-650-SW |

### Suitable for the following vehicle models

| Manufacturer/Type | from year |
|---|---|
| Citroën Jumper | 2006 |
| Fiat Ducato 250 | 2006 |
| Iveco Daily | 2003 |
| Peugeot Boxer | 2006 |
| Mercedes Sprinter | 2007 |
| VW T5 | 2005 |

For CAN bus vehicles

Activated and deactivated via the original hand transmitter

Interior surveillance can be deactivated

Backup siren

Fast and easy installation

Ultrasonic sensors monitoring the vehicle interior

Activation and deactivation using the original remote control of your vehicle

Electronic key to deactivate the alarm in an emergency

Contents, specifications and availability are subject to change serving the technical improvement.

# No chance for burglars!

## The top security concept for your vehicle

**The tried and tested WAECO MagicSafe MS 650 satisfies the needs of our most demanding customers.** Easy to install with its modular design, this car alarm system provides reliable protection from theft, break-in and vandalism.

The comprehensive security for inside and out responds immediately – to movements inside, to the opening of any access, or to the start of the ignition. If the alarm is triggered, either the car horn or the siren (available as an optional extra) sounds for 30 seconds, and the hazard lights flash. In an acute emergency, you can use the panic button and trigger alarm by the hand transmitter.

### Advantages of the modular system

Unlike conventional alarm systems that are completely installed in the engine compartment, the alarm unit of the MagicSafe MS 650 is protected from moisture. Fitted inside the car, it is out of reach of splash water (heavy rain or engine wash).

What's more, the modular design means you can connect additional sensors, e. g. a gas detector (p. 192/192) or a radio PIR movement sensor.

### Radio PIR movement sensor

The **wireless movement sensor WAECO MagicSafe MS650 PIR** is able to monitor even **larger interiors** such as in **motorhomes or caravans**.

Unlike other sensors, there's **no need for wiring** – a crucial advantage because the MS 650PIR can easily be moved from one location to another. During the day, for example, it secures the caravan, while it will keep an eye on trailer or luggage box at night, or on the motorhome in the summer and the garage in the winter, or the trailer during the week – and at the weekend ...

The MS 650PIR is an **additional sensor**, which can be combined with all **MS 650 car alarm** models produced from year 2000.

The unit consists of a **movement sensor** and a **radio transmitter**. In an emergency, it transmits a radio signal to the car alarm's base station, which will immediately trigger the alarm.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO MagicSafe MS 650 3.08

**Retrofit car alarm**

- Monitoring of doors, bonnet, boot
- Ultrasonic interior surveillance (can be switched off)
- Visual alarm via hazard lights
- Acoustic alarm via car horn
- Activation and deactivation via radio remote control
- Remote control of the central locking system
- Separate remote control of original convenience functions
- Panic function (alarm triggered by hand transmitter)
- Programmable automatic activation
- Status indication by LED
- Alarm memory function
- For use with up to four programmable hand transmitters
- Copy-proof with 4.3 billion codes
- Long range (up to 20 metres) with the radio transmitter
- Various programmable settings
- For all vehicles with 12-volt electrics
- Suitable for DIY installation
- E-approved, in compliance with R&TTE directive, certified for operation throughout Europe

**Scope of delivery:**
2 radio hand transmitters, alarm control unit, ultrasonic interior surveillance, bonnet contact switch, status LED, emergency switch, relay for vehicle horn, pre-assembled cable set and fixing materials, installation and operating instructions, 2 alarm stickers

| Product | Ref. No. |
|---|---|
| MagicSafe MS 650 | MS-650 |

**Also for 24 volts with additional adapter**

**Interior surveillance can be deactivated**

**Triggers the car horn in an emergency**

## Accessories for MagicSafe MS 650

### WAECO MagicSafe Accessory 3.08

| Products | Ref. No. |
|---|---|
| Siren | MS-620SI |
| Radio hand transmitter | MS-650TX |
| Tilt sensor | MS-650-NS |
| 24-volt adapter | MS-650-24V |
| Magnetic contact switch | MS-650-SW |

### WAECO MagicSafe Accessory 3.08

**Radio PIR movement sensor**

- Retrofit sensor for all MS 650 car alarms produced from year 2000
- Connection to the main station by transmission of a radio signal
- Simple and quick assembly, as there is no sensor wiring
- Additional sensors can be directly connected
- Flexible application, as there is no sensor wiring
- Movement sensor with large monitoring area
- Visual battery low indication
- Use of up to two movement sensors possible, if MS 650 is used with two hand transmitters
- Movement sensor can be switched off with the hand transmitter, which means the user can stay in the car while the car alarm is activated

**Scope of delivery:**
Movement sensor with transmitter, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| Movement sensor | MS-650PIR |

**No need to wire the sensor**

**For surveillance of interiors, motorhomes, luggage boxes**

Contents, specifications and availability are subject to change serving the technical improvement.

# Good to know you are safe and sound

## MagicSafe gas detector

**How do you know if gas from an onboard supply has leaked into your vehicle? Probably only when it is too late ... The WAECO MagicSafe gas detector protects you from dangerous surprises.** It reliably detects the presence of narcotic gases in the atmosphere and immediately triggers the alarm. The integrated buzzer emits an audible signal. In addition, warnings are indicated by a red LED that is activated by a signal from the switching relay.

The test button (alarm mute) silences the audible alarm. You can use it to check the sensor function, too.

**The MagicSafe gas detector can also be fitted as a complementary module to the MagicSafe MS 650 and MagicSafe MS 670** car alarms (p. 188 – 191). The sensor detects all knock-out gases based on ether, chloroform, butane, ethane and trichlorethene.

When you've switched on the gas detector, the system will initially perform a self function test and then adjust automatically to the room atmosphere. Any system failure will be immediately indicated.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO MagicSafe MSG 150 3.08

**Gas detector 12 and 24 volts**

- Responds to all common narcotic gases
- Audible and visual alarm
- Integrated 10-A switching relay
- Adjusts automatically to the room atmosphere
- Temperature-independent gas sensor
- Automatic self test with visual error indication
- Manual function test
- Self-cleaning gas sensor
- Three usage options:
  - As stand-alone unit
  - In combination with MagicSafe MS 650 and MS 670 car alarms (12 V operation only)
  - In combination with the MS-620SI siren (12 V operation only)
- Can be activated/deactivated by the car alarm's remote control
- Designed for 12/24-volt power supply

| | |
|---|---|
| Power input approx | approx. 80 mA |
| Control output | 1 |
| Output switching current | 10 A |

**Scope of delivery:**
MSG 150 gas detector, mounting plate, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicSafe MSG 150 | MSG-150-N |

**Detects all common narcotic gases**

**Can be used as stand-alone unit or in combination with the MagicSafe car alarms MS 650 and MS 670**

**Audible and visual alarm**

## 3 optional system configurations

**The integrated relay circuits allow for three optional system configurations. The WAECO MagicSafe gas detector can be used:**

1. As stand-alone alarm unit
2. In combination with the MS-620SI siren (page 191)
3. In combination with the MagicSafe MS 650 and MS 670 car alarms (pages 188 – 191).

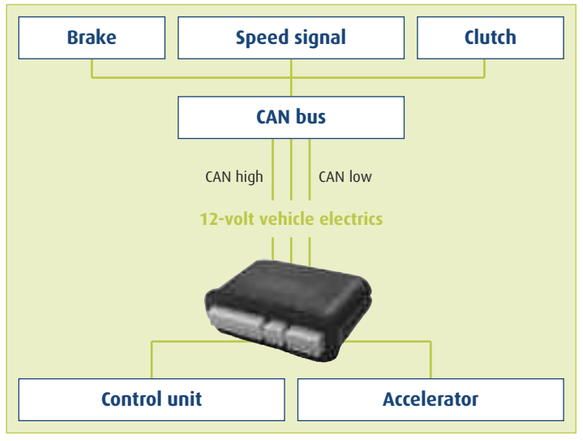
Contents, specifications and availability are subject to change serving the technical improvement.

# Choose your own speed!

## Cruise control for vehicles with CAN bus and electronic accelerator

**In more and more vehicles, the entire engine management is done by highly complex electronics.** The individual control units are networked by CAN bus links, and the pressure on the accelerator pedal is transmitted electronically. Conventional cruise controls with servo unit usually cannot be used in such models.

**Even so, no motorist needs to go without the benefits cruise control systems provide. WAECO's new cruise control, MagicSpeed MS 900, takes care of that. It was specifically designed for vehicles with CAN bus system and electronic accelerator.** Magic Speed MS 900 uses a control unit that is directly linked to the electronic accelerator control by means of a vehicle-specific adapter cable. The system's CAN bus compatibility ensures smooth operation within the vehicle's electronic system. It also makes for super-fast installation. No soldering, no crimping, just plug and play!




### Ease of installation shown on the example of Fiat Ducato

The interface where the MS 900 taps the signal is the onboard computer

Signal tapped with just three vehicle-specific plug-in connectors

Connection to the accelerator via T-plug

Connection of the control element to the dashboard or steering column



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO MagicSpeed MS 900 3.06

NEW

**Cruise control for vehicles with comfort CAN bus and electronic accelerator**

- Functions: speed set and previous speed reset
- Fine speed adjustment (tap up, tap down)
- After code entry system adjusts itself automatically to the vehicle parameters (speed signal and sensitivity)
- ON/OFF
- **All signals required are controlled via CAN bus system**
- Easy to fit with cable sets for specific vehicles, no soldering or crimping – just plug and play
- Choice of two control elements
- German and European operating permit

**Preconditions for installation:**
12 V vehicles, electronic accelerator, comfort CAN bus

**Scope of delivery:**
Electronic module, set of cables, fixing materials, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicSpeed MS 900 **for Fiat Ducato, Peugeot Boxer and Citroën Jumper** | MS-901 |
| MagicSpeed MS 900 **for Opel Movano/Vivaro, Renault Master/Traffic and Nissan Primastar/Interstar** | MS-902 |

For vehicles with electronic accelerator and CAN bus

Designed for specific vehicles

Extremely fast installation (0.5 – 1 hour)

## Control elements for MagicSpeed MS 900

### WAECO MagicSpeed Accessories 3.06

**Control lever to be fitted on the steering column**

- Easy installation on the steering column (left), inclination variable with angle disks
- ON/OFF switch with status indication fitted on the steering lever
- Fine speed adjustment (tap up, tap down)
- E-approved

**Scope of delivery:**
Control lever, plug housing, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| Control lever | MS-BE6 |

Attractive design in original equipment quality

**Control unit to be fitted on the dashboard**

- Easy installation on the dashboard
- ON/OFF switch
- Fine speed adjustment (tap up, tap down)
- E-approved

**Scope of delivery:**
Control element, plug housing, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| Control element | MS-BE5 |

Easy installation on the dashboard

Contents, specifications and availability are subject to change serving the technical improvement.

# Foot off the gas pedal!

## Cruise control for vehicles with electronic accelerator

**There's a tremendous exchange of data under the bonnet. In most cars and motorhomes, even the use of the gas pedal** is electronically transmitted. Which eliminates the possibility of using a common cruise control with servo unit.

This is where the **MagicSpeed MS 800** comes in. **This cruise control has been specially developed for modern vehicles and "liberates" the right foot from the need to press the gas pedal on long, monotonous journeys.** MagicSpeed MS 800 uses an interface module that is directly linked to the electronic accelerator control by means of a vehicle-specific adapter cable. **Note:** the vehicle-specific cable set is an optional extra to complement the MS 800 base unit, so it has to be ordered separately. WAECO offers a choice of three control elements to suit different vehicle models.

### WAECO MagicSpeed MS 800 — 3.06

**Comfort cruise control for vehicles with electronic accelerator**

- Functions: speed set and previous speed reset
- Fine speed adjustment (tap up, tap down)
- Adjusts itself automatically to the vehicle parameters (speed signal and sensitivity)
- Acoustic and visual self diagnosis
- ON/OFF
- Easy to fit with cable sets for specific vehicles
- Choice of three control elements
- E-approved

**Preconditions for installation:**
12 V vehicle electrics, electronic accelerator, electric speed or revs signal (only for vehicles with manual transmission), vehicle-specific cable set required

**Scope of delivery:**
Interface unit, electronic module, clutch switch, set of cables, fixing materials, installation and operating instructions

| Product | Ref. No. |
|---|---|
| MagicSpeed MS 800 | MS-800 |

For vehicles with electronic accelerator

Designed to suit specific vehicles

Easy to fit



Contents, specifications and availability are subject to change serving the technical improvement.



## Control elements for MagicSpeed MS 800

### WAECO MagicSpeed Accessories — 3.06

**Control lever to be fitted on the steering column**

- Easy installation on the steering column (left), inclination variable with angle disks
- ON/OFF switch with status indication fitted on the steering leve
- Fine speed adjustment (tap up, tap down)
- E-approved

**Scope of delivery:**
Control lever, plug housing, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| Bedienhebel | MS-BE4 |

Attractive design in original equipment quality

**Infra-red remote control to be fitted on the steering wheel**

- Easy installation on the steering wheel with a belt band
- Remote control powered by a battery (CR2032 button cell)
- Remote control unit with low battery LED
- ON/OFF switch (with status indication) is fitted on the dashboard
- E-approved

**Scope of delivery:**
Control element, control electronics, IR receiver, ON/OFF switch, power kit, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| IR remote control | MS-IR2 |

Safe and secure: operation from the steering wheel



**Control unit to be fitted on the dashboard**

- Easy installation on the dashboard
- ON/OFF switch
- Fine speed adjustment (tap up, tap down)
- E-approved

**Scope of delivery:**
Control element, plug housing, fixing materials, installation instructions

| Product | Ref. No. |
|---|---|
| Control element | MS-BE3 |

Easy installation on the dashboard

## Cable sets for MagicSpeed MS 800

| Products | Ref. No. |
|---|---|
| Adapter cable set FIAT Ducato up to year 2006 (ZFA 244) | MS-FI2 |
| Adapter cable set FIAT Ducato, PEUGEOT Boxer CITROEN Jumper from year 2006 (ZFA 250) | MS-FI1 |
| Adapter cable set RENAULT Master, OPEL Movano | MS-RE1 |
| **More optional extras:** Speed signal amplifier for speed signals in the mV range | MS-SV |

Contents, specifications and availability are subject to change serving the technical improvement.

# › Mobile kitchen equipment


| | | |
|---|---|---|
| WAECO PerfectKitchen | Car-Kettles | 200 › 201 |
| WAECO PerfectCoffee | Coffee-Makers de Luxe | 202 › 203 |

# Relaxed breaks in a kitchen of your own

## Save time and money on the road

Available in a 12-volt and 24-volt version

**Long waits and steep prices in motorway service areas are something we'd like to spare our customers. Which is why the small step from mobile cooling to mobile equipment was a logical progression for WAECO.** The mobile kitchen programme includes car kettles and coffee makers, all available in a 12- and 24-volt version.

Motorhome owners, skippers and truckers alike have come to appreciate the practical appliances as an integrated part of their onboard kitchen equipment. This is because they are so easy to use and designed in every detail for the rigours of mobile use.



Contents, specifications and availability are subject to change serving the technical improvement.

## WAECO PerfectKitchen MCK 750 3.14

| Car-Kettle for 12 or 24 volts | |
|---|---|
| Capacity | approx. 0.75 litres |
| Voltage | **12 or 24 volts DC** |
| Average power consumption | 12 volts: 200 watts, 24 volts: 380 watts |
| Colour | Black/silver |
| Dimensions (W x H x D) | 190 x 205 x 125 mm (incl. fixing kit) |
| Weight | 750 g |
| Quality features | Robust relay technology, switches off automatically when the boiling temperature has been reached, or when there's no water in the kettle, status indication |
| Test marks | e-approved according to 95/54/EC (EMC guidelines for vehicles), complies with the German Foodstuff and Consumer Goods Act (LMBG) |
| Scope of delivery | Fixing kit for wall or desk mounting |

| Products | Ref. No. |
|---|---|
| PerfectKitchen MCK 750, 12 volts | MCK-750-12/N |
| PerfectKitchen MCK 750, 24 volts | MCK-750-24/N |

Tailor-made for mobile use

Wall or desk mounting

New design

Test winner Trucker 6 | 2003

## For a warm feeling inside

A hot cup of tea is one of the best ways to revive flagging spirits when you are on the road. Instant soups and baby's meal, too, are prepared in a trice with the WAECO PerfectKitchen MCK 750.

The elegantly shaped car kettle is handy and safe in operation. Available in two models – for 12 and 24 volts – it can be run directly from the onboard power supply.

Contents, specifications and availability are subject to change serving the technical improvement.

# Coffee's ready!

## Mobile coffee maker for 8 cups

**Even on holiday there's nothing better than a good cup of coffee.** Especially when it's freshly brewed and your favourite brand. The aroma alone is invigorating, it lifts your spirits and attracts thirsty friends. And why not, your WAECO PerfectCoffee MC 08 holds enough for them all. The high-quality coffee maker brews **up to 8 cups of coffee** in a few minutes. The safety cut-off turns it off automatically when the brewing is done. Any coffee left can be enjoyed later. Your favourite drink stays hot for quite some time in the elegantly shaped insulated pot. The MC 08 was **specially designed for mobile use**, perfect in every detail and amazingly space-saving. Available as a **12-volt and 24-volt model.**



Contents, specifications and availability are subject to change serving the technical improvement.



## WAECO PerfectCoffee MC 08 3.13

| Coffee-Maker de Luxe for 8 cups, 12 or 24 volts | |
|---|---|
| Capacity | 8 cups (750 ml) |
| Voltage | 12 or 24 volts DC |
| Average power consumption | 12 volts: 200 watts, 24 volts: 360 watts |
| Colour | Black/silver |
| Dimensions (W x H x D) | 285 x 320 x 100 mm |
| Weight | 1.8 kg |
| Quality features | Slim, space-saving design, removable water tank, water level indicator, robust relay technology, LED indicator, cut-off after brewing |
| Test marks | e-approved according to 95/54/EC (EMC guidelines vehicles), complies with the German Foodstuff and Consumer Goods Act (LMBG) |
| Scope of delivery | Insulated pot, fixing kit for wall or desk mounting |

| Products | Ref. No. |
|---|---|
| PerfectCoffee MC 08, 12 volts | MC-8-12LX/N |
| PerfectCoffee MC 08, 24 volts | MC-8-24LX/N |

Automatic cut-off after brewing

Convenient operation

With robust relay technology

New design

Test winner Trucker 6 | 2003

## Slim design that fits anywhere

Here's one that fits where others won't. At a **depth of just 10 centimetres** the PerfectCoffee MC 08 is easy to accommodate, even in confined spaces. Choose the place you like best. **Wall or desk mounting**, either is possible. The **fixing kit** included with each unit gives your coffee maker a firm hold. On top of that, there are many details for extra convenience. For example, a **removable water tank** to be filled directly from the tap.

Contents, specifications and availability are subject to change serving the technical improvement.

# › Product gallery





## WAECO MyFridge

NEW!

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**MyFridge MF-40**
Absorption refrigerator
Ref. No. 9105700001

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**MyFridge MF-1W**
Wine climatiser
Ref. No. 9106300001

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**MyFridge MF-6W**
Wine refrigerator
Ref. No. MF-6W-12/230

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**MyFridge MF-5B**
Beer keg cooler
Ref. No. MF-5B-12/230

## WAECO CoolFun

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**CoolFun CD-22**
Thermoelectric cooler
Ref. No. CD-22-AC

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**CoolFun CD-32**
Thermoelectric cooler
Ref. No. CD-32-AC

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**CoolFun CK-40D**
AC compressor cooler
Ref. No. CK-40D-230

## WAECO TropiCool

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**TropiCool TC-07**
Thermoelectric cooler
Ref. No. TC-07UG-12/230

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**TropiCool TC-14FL**
Thermoelectric cooler
Ref. No. TC-14FL-AC

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**TropiCool TC-21FL**
Thermoelectric cooler
Ref. No. TC-21FL-AC

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**TropiCool TC-35FL**
Thermoelectric cooler
Ref. No. TC-35FL-AC

## WAECO CombiCool

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**CombiCool CAB-40**
3-way absorption cooler
Ref. No. CAB-40-PB30

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**CombiCool CAB-40**
3-way absorption cooler
Ref. No. CAB-40-PB50

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**CombiCool CAB-55**
3-way absorption cooler
Ref. No. CAB-55-PB30

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**CombiCool CAB-55**
3-way absorption cooler
Ref. No. CAB-55-PB50

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**CombiCool CAS-60**
3-way absorption refrigerator
Ref. No. CAS-60-12/PB30

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**CombiCool CAS-60**
3-way absorption refrigerator
Ref. No. CAS-60-12/PB50

## WAECO CoolFreeze

NEW!

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**CoolFreeze CF-32UP**
Compressor cooler with rechargeable battery
Ref. No. 9105100001

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**CoolFreeze CF-18**
Compressor cooler
Ref. No. CF-018DC

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**CoolFreeze CF-25**
Compressor cooler
Ref. No. CF-025DC

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**CoolFreeze CF-35**
Compressor cooler
Ref. No. CF-035AC

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**CoolFreeze CF-40**
Compressor cooler
Ref. No. CF-040AC

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**CoolFreeze CF-50**
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**CoolFreeze CF-80**
Compressor cooler
Ref. No. CF-080AC

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**CoolFreeze CF-110**
Compressor cooler
Ref. No. CF-110AC

## WAECO CoolMatic

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**CoolMatic CB-36**
Built-in compressor cooler
Ref. No. CB-036

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**CoolMatic CB-40**
Built-in compressor cooler
Ref. No. CB-040

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**CoolMatic CB-110**
Built-in compressor cooler
Ref. No. CB-110

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**CoolMatic CD-30**
Compressor drawer fridge
Ref. No. CD-030DC

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**CoolMatic CD-30W**
Compressor drawer fridge
Ref. No. CD-030DCW

NEW!

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**CoolMatic CR-50 Chrome**
Compressor refrigerator
Ref. No. CR-0050ST

NEW!

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**CoolMatic CR-65 Chrome**
Compressor refrigerator
Ref. No. CR-0065ST

NEW!

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**CoolMatic CR-80 Chrome**
Compressor refrigerator
Ref. No. CR-0080ST

NEW!

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**CoolMatic CR-110 Chrome**
Compressor refrigerator
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**CoolMatic CR-50**
Compressor refrigerator
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Compressor refrigerator
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**CoolMatic CR-80**
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**CoolMatic CR-110**
Compressor refrigerator
Ref. No. CR-0110E

Contents, specifications and availability are subject to change serving the technical improvement.
For accessories please refer to the corresponding product pages.

## WAECO CoolMatic

NEW!

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**CoolMatic CRP-40**
Compressor refrigerator
Ref. No. 9105600001

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**CoolMatic CRF-50**
Compressor refrigerator
Ref. No. CRF-0050E

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**CoolMatic RSD-115**
Compressor refrigerator
Ref. No. RSD-0115E

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**CoolMatic RSF-115**
Compressor refrigerator
Ref. No. RSF-0115E

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**CoolMatic RPD-190**
Compressor refrigerator
Ref. No. RPD-1190E

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**CoolMatic MDC-50**
Compressor refrigerator
Ref. No. MDC-050

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**CoolMatic MDC-65**
Compressor refrigerator
Ref. No. MDC-065

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**CoolMatic MDC-90**
Compressor refrigerator
Ref. No. MDC-090

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**CoolMatic MDC-110**
Compressor refrigerator
Ref. No. MDC-110



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**CoolMatic HDC-160**
Compressor refrigerator
Ref. No. HDC-160



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**CoolMatic HDC-190**
Compressor refrigerator
Ref. No. HDC-190

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**CoolMatic HDC-220**
Compressor refrigerator
Ref. No. HDC-220

## WAECO ColdMachine

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**ColdMachine 54**
Cooling unit
Ref. No. CU-54

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**ColdMachine 55**
Cooling unit
Ref. No. CU-55

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L-evaporator VD-01
for Series 50
Ref. No. VD-01

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Plate evaporator VD-02
for Series 50
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O-evaporator VD-07
for Series 50
Ref. No. VD-07

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Cold accumulator VD-17
for Series 50
Ref. No. VD-17

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**ColdMachine 84**
Cooling unit
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**ColdMachine 85**
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**ColdMachine 86**
Cooling unit
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Cold accumulator VD-06
for Series 80
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Fin evaporator VD-03
for Series 80
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L-evaporator VD-04
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Plate evaporator VD-05
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Plate evaporator VD-18
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Angle evaporator VD-08
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**ColdMachine CS-NC15**
Compact cooling unit
Ref. No. CS-NC15



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For accessories please refer to the corresponding product pages.



## WAECO CoolPower

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**CoolPower EPS 817**
Mains adapter 230 V › 12 V
Ref. No. EPS-817U

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**CoolPower M 50U**
Voltage monitor 12 V 5 A
Ref. No. M-50U-12

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**CoolPower 804 K**
Voltage converter 24 V › 12 V
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**CoolPower EPS 100**
Mains adapter 230 V › 24 V
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**CoolPower MPS 35**
Mains adapter 110–240 V › 24 V
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Mains adapter 110–240 V › 24 V
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## Dometic
## Air conditioners

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Roof air conditioner 230 V
Ref. No. 9100100003

NEW!

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Roof air conditioner 230 V
Ref. No. 958500176

NEW!

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**Dometic B 2200**
Roof air conditioner 230 V
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**Dometic CA 2500**
Roof air conditioner 230 V
Ref. No. 9100100001

NEW!

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Under-bench air conditioner 230 V
Ref. No. 958500172

## WAECO PerfectBattery

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**PerfectBattery BR 12**
Battery refresher 12 V
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**PerfectBattery BR 24**
Battery refresher 24 V
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**PerfectBattery BC 100**
Battery conditioner 12 V
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Charging converter 20 A 12 V › 12 V
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Charging converter 40 A 12 V › 12 V
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## WAECO PerfectPower

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**PerfectPower PP 150**
Inverter 150 W
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**PerfectPower DCDC 20**
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24 V › 12 V
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**PerfectPower DCDC 40**
Voltage converter 40 A
24 V › 12 V
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Sine wave inverter 150 W
12 V
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**SinePower SP 352**
Sine wave inverter 350 W
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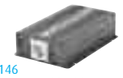
**SinePower SP 354**
Sine wave inverter 350 W
24 V
Ref. No. MSK350-024



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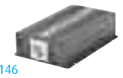
**SinePower SP 700**
Sine wave inverter 700 W
12 V
Ref. No. MSK700-012



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## WAECO PocketPower

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Smart inverter 110 W 12 V
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## WAECO PowerVac

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**PowerVac PV 100**
Wet/dry vacuum cleaner
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CRT reversing video system
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**PerfectView LCD 250**
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Ref. No. RV-250/LCD

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Ref. No. RV-550/SWM

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Ref. No. RV-590

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LCD reversing video system
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LCD reversing video system
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**PerfectView CAM 24NAV**
b/w universal camera
for navigation systems
Ref. No. RV-24-NAV

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**PerfectView CAM 27NAV**
Colour universal camera
for navigation systems
Ref. No. RV-27-NAV

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**PerfectView CAM 20C**
Colour shutter camera
for navigation systems
Ref. No. RV-20/CFM-PAL-K

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**PerfectView CAM 33C3**
Colour twin camera with shutter
for navigation systems
Ref. No. RV-33-TCFMS-KIT

## WAECO PerfectFit

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**PerfectFit**
Monitor console for
LCD and CRT monitors

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**PerfectFit**
Consoles for securing
navigation devices



Contents, specifications and availability are subject to change serving the technical improvement.
For accessories please refer to the corresponding product pages.



## WAECO MagicWatch

NEW!

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**MagicWatch MWE 850RV**
Parking aid,
with video input
Ref. No. 2221500001

NEW!

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**MagicWatch MWE 900**
Parking aid,
4 built-in sensors
Ref. No. MWE-900-4PPS

NEW!

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**MagicWatch MWE 910**
Parking aid,
8 built-in sensors
Ref. No. MWE-910-8PPS

## WAECO MagicSafe

NEW!

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**MagicSafe MS 670**
CAN bus universal car alarm
Ref. No. MS-670

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**MagicSafe MS 650**
Retrofit car alarm
Ref. No. MS-650

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**MagicSafe MSG 150**
Gas detector 12/24 V
Ref. No. MSG-150-N

## WAECO MagicSpeed

NEW!

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**MagicSpeed MS 900**
Cruise control
Ref. No. MS-901 / MS-902

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**MagicSpeed MS 800**
Cruise control
Ref. No. MS-800

## WAECO PerfectKitchen

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**PerfectKitchen MCK 750**
Car-Kettle 12 V
Ref. No. MCK-750-12/N

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**PerfectKitchen MCK 750**
Car-Kettle 24 V
Ref. No. MCK-750-24/N

## WAECO PerfectCoffee

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**PerfectCoffee MC 08**
Coffee-Maker for 8 cups 12 V
Ref. No. MC-8-12LX/N

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**PerfectCoffee MC 08**
Coffee-Maker for 8 cups 24 V
Ref. No. MC-8-24LX/N



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